Pan American
SILVER CORP.

Annual Information Form

For the Year Ended December 31, 2015

March 24, 2016

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Vancouver, British Columbia
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WHAT'S INSIDE

IMPORTANT INFORMATION ABOUT THIS DOCUMENT

This annual information form ("AIF") provides important information about Pan American Silver Corp. It describes our history, our markets, our operations and development projects, our mineral reserves and mineral resources, sustainability, our regulatory environment, the risks we face in our business and the market for our shares, among other things.

We have prepared this document to meet the requirements of Canadian securities laws, which are different from what US securities laws require.

Throughout this document, the term *Pan American* means Pan American Silver Corp. and the terms *we*, *us*, and *our* mean Pan American and its subsidiaries.

Reporting Currency and Financial Information

Unless we have specified otherwise, all references to dollar amounts or $ are to United States dollars. Any references to CAD or CAD$ mean Canadian dollars.

All financial information presented in this AIF was prepared in accordance with international financial reporting standards ("IFRS") as issued by the International Accounting Standards Board.

Non-GAAP Measures

This AIF refers to various non-generally accepted accounting principles ("non-GAAP") measures, such as cash cost per payable ounce of silver, net of by-product credits ("cash costs"), all-in sustaining costs per silver ounce sold ("AISCSOS") and working capital.

Cash Costs

This AIF presents information about our cash costs of production of a payable ounce of silver produced, net of by-product credits for our operating mines. Except as otherwise noted, cash costs is calculated by dividing total cash costs net of by-product credits by total payable silver ounces produced at the relevant mine or mines. Total cash costs include mine operating costs such as mining, processing, administration, royalties and operating taxes, but exclude amortization, reclamation costs, financing costs and capital development and exploration. Certain amounts of stock-based compensation are excluded as well.

Cash costs is included in this AIF because certain investors use this information to assess our performance and also to determine our ability to generate cash flow for use in investing and other activities. The inclusion of cash costs may enable investors to better understand year-over-year changes in our production costs, which in turn affect profitability and cash flow. Cash costs does not have a standardized meaning or a consistent basis of calculation prescribed by Canadian accounting standards. Investors are cautioned that cash costs should not be considered in isolation or construed as a substitute to costs determined in accordance with Canadian accounting standards as prescribed under IFRS as an indicator of performance. Our method of calculating cash costs may differ from the methods used by other entities and, accordingly, our cash costs may not be comparable to similarly titled measures used by other entities. Readers should refer to our management's discussion and analysis for the year ended December 31, 2015 (the "2015 MD&A") for a detailed description and reconciliation of this non-GAAP measure.

All-In Sustaining Costs Per Silver Ounce Sold

This AIF includes information about our calculation of AISCSOS. The Company believes that AISCSOS reflects a comprehensive measure of the full cost of operating its consolidated business given it includes the cost of replacing ounces through exploration, the cost of ongoing capital investment (sustaining capital), general and administrative expenses, as well as other items that affect the Company's consolidated earnings and cash flow. AISCSOS does not have a standardized meaning or a consistent basis of calculation prescribed by Canadian accounting standards. Our method of calculating AISCSOS may differ from the methods used by other entities and,

accordingly, our AISCSOS may not be comparable to similarly titled measures used by other entities. Readers should refer to the 2015 MD&A for a detailed description and reconciliation of this non-GAAP measure.

Working Capital

Working capital is a non-GAAP measure calculated as current assets less current liabilities. Working capital does not have any standardized meaning prescribed by GAAP and is therefore unlikely to be comparable to similar measures presented by other companies. The Company and certain investors use this information to evaluate whether the Company is able to meet its current obligations using its current assets.

Glossary of Terms

The glossary of terms under "Glossary of Terms" of this AIF contains definitions of certain scientific or technical terms used in this AIF that might be useful for your understanding.

Caution About Forward-Looking Information

Our AIF includes statements and information about our expectations for the future. When we discuss our strategy, plans and future financial and operating performance, or other things that have not yet taken place, we are making statements considered to be forward-looking information or forward-looking statements under Canadian securities laws and the United States Private Securities Litigation Reform Act of 1995. We refer to them in this AIF as forward-looking information.

Key things to understand about the forward-looking information in this AIF are:

- It typically includes words and phrases about the future, such as *believe*, *estimate*, *anticipate*, *expect*, *plan*, *intend*, *predict*, *goal*, *target*, *forecast*, *project*, *scheduled*, *potential*, *strategy* and *proposed* (see examples starting on page 3).
- It is based on a number of material assumptions, including, but not limited to, those we have listed below, that may prove to be incorrect.
- Actual results and events may be significantly different from what we currently expect, because of, among other things, the risks associated with our business. We list a number of these material risks below under “Material Risks and Assumptions”. We recommend you also review other parts of this AIF, including "Risks Related to Our Business" starting on page 76, and our 2015 MD&A, which include a discussion of other material risks that could cause our actual results to differ from current expectations.

Forward-looking information is designed to help you understand management’s current views of our near and longer term prospects. It may not be appropriate for other purposes. We do not intend to update forward-looking information unless we are required to do so by applicable securities laws.

Examples of Forward-Looking Information in this AIF:

- the price of silver and other metals;
- the sufficiency of our current working capital, anticipated operating cash flow or our ability to raise necessary funds;
- the accuracy of mineral reserve and mineral resource estimates, estimates of future production and future cash, and total costs of production, as applicable, at Huaron, Morococha, La Colorada, Dolores, Alamo Dorado, Manantial Espejo, Navidad, San Vicente, or other properties;
- estimated production rates for silver and other payable metals we produce, timing of production and estimated cash and total costs of production, including forecasted cash costs of production;
- the estimated cost of and availability of funding for ongoing capital replacement, improvement or remediation programs, and the availability of funding for future construction and development projects;
- estimated costs of construction, development and ramp-up of our projects;

- future successful development of the Navidad property and our other development projects;
- the effects of laws, regulations and government policies affecting our operations, including, without limitation, expectations relating to or the effect of certain highly restrictive laws and regulations applicable to mining in the Province of Chubut, Argentina;
- the estimates of expected or anticipated economic returns from a mining project, as reflected in preliminary economic assessments, feasibility and pre-feasibility studies or other reports prepared in relation to development of projects;
- estimated exploration expenditures to be incurred on our various silver exploration properties;
- compliance with environmental, health, safety and other regulations;
- estimated future closure, reclamation and remediation costs;
- forecast capital and non-operating spending;
- estimates of foreign exchange rates and future income tax rates;
- future sales of the metals, concentrates or other products produced by us;
- continued access to necessary infrastructure, including, without limitation, access to power, water, lands and roads to carry on activities as planned;
- our plans and expectations for our properties and operations, including, without limitation, production estimates, forecasts regarding investment activities, and other matters discussed under the heading "Outlook for 2016" and under the headings "Capital and Operating Costs" and "Exploration, Development, and Production" with respect to each of our material properties;
- the expected investment and development activities at the La Colorada mine;
- the expected investment and development activities at the Dolores mine; and
- the ability to obtain permits, including for future project development and expansion.

Material Risks and Assumptions:

The forward-looking information in this AIF reflects our current views with respect to future events and are necessarily based upon a number of assumptions and estimates that, while considered reasonable by us, are inherently subject to significant business, economic, competitive, political and social uncertainties and contingencies. Many factors, both known and unknown, could cause actual results, performance or achievements to be materially different from the results, performance or achievements that are or may be expressed or implied by such forward-looking information contained in this AIF and documents incorporated by reference, and we have made assumptions based on or related to many of these factors.

Such factors include, without limitation:

- fluctuations in spot and forward markets for silver, gold, base metals and certain other commodities (such as natural gas, fuel oil and electricity);
- restrictions on mining in the jurisdictions in which we operate;
- laws and regulations governing our operation, exploration and development activities;
- our ability to obtain or renew the licenses and permits necessary for the operation and expansion of our existing operations and for the development, construction and commencement of new operations;
- risks and hazards associated with the business of mineral exploration, development and mining (including environmental hazards, industrial accidents, unusual or unexpected geological or structural formations, pressures, cave-ins and flooding);
- inherent risks associated with tailings facilities and heap leach operations, including failure or leakages;
- the speculative nature of mineral exploration and development;
- diminishing quantities or grades of mineral reserves as properties are mined;
- the inability to determine, with certainty, the production of metals or the price to be received before mineral reserves or mineral resources are actually mined;

- the inability to determine, with certainty, production and cost estimates;
- inadequate or unreliable infrastructure (such as roads, bridges, power sources and water supplies);
- environmental regulations and legislation;
- reclamation requirements;
- risks relating to our operations in Peru, Mexico, Argentina, Bolivia and other foreign jurisdictions where we may operate;
- risks relating to the creditworthiness and financial condition of our suppliers, refiners and other third parties;
- fluctuations in currency markets (such as the Peruvian nuevo sol ("PEN"), Mexican peso ("MXN"), Argentine peso ("ARS") and Bolivian boliviano versus the U.S. dollar and Canadian dollar);
- the volatility of the metals markets, and its potential to impact our ability to meet our financial obligations;
- the inability to recruit and retain qualified personnel;
- employee relations;
- disputes as to the validity of mining or exploration titles or claims or rights, which constitute most of our property holdings;
- our ability to complete and successfully integrate acquisitions;
- increased competition in the mining industry for properties and equipment;
- limited supply of materials and supply chain disruptions;
- relations with and claims by indigenous populations;
- relations with and claims by local communities and non-governmental organizations;
- the effectiveness of our internal control over financial reporting;
- claims and legal proceedings arising in the ordinary course of business activities; and
- those factors identified under the caption "Risks Related to our Business" in this AIF and the documents incorporated by reference herein, if any.

You should not attribute undue certainty to forward-looking information. Although we have attempted to identify important factors that could cause actual results to differ materially, there may be other factors that cause results not to be as described. We do not intend to update forward-looking information to reflect changes in assumptions or changes in circumstances or any other events affecting such information, other than as required by applicable law.

Please see "Cautionary Note to U.S. Investors Concerning Estimates of Mineral Reserves and Resources" on page 7 of this AIF.

Conversion Table

In this AIF, metric units are used with respect to mineral properties located in Peru, Mexico, Argentina, 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.

Imperial Measure	=	Metric Unit
2.47 acres		1 hectare
3.28 feet		1 metre
0.62 miles		1 kilometre
0.032 ounces (troy)		1 gram
1.102 tons (short)		1 tonne
0.029 ounces (troy)/ ton (short)		1 gram/tonne
2205 pounds		1 tonne

Metric Unit	=	Imperial Measure
0.4047 hectares		1 acre
0.3048 metres		1 foot
1.609 kilometres		1 mile
31.1 grams		1 ounce (troy)
0.907 tonnes		1 ton (short)
34.28 grams/tonne		1 ounce (troy)/ton (short)

Scientific and Technical Information

Mineral reserve and mineral resource estimates in this AIF relating to La Colorada, Alamo Dorado, Dolores, Huaron, Morococha, San Vicente, and Manantial Espejo are based on information prepared under the supervision of, or has been reviewed by, Martin Dupuis, P.Geo., Director of Geology for Pan American, and Martin Wafforn, P.Eng., Vice President, Technical Services of Pan American. Scientific or technical information in this AIF relating to La Colorada, Alamo Dorado and Manantial Espejo is based on information prepared under the supervision of, or has been reviewed by, Michael Steinmann, P.Geo., President and Chief Executive Officer of Pan American, and Martin Wafforn, P.Eng., Vice President, Technical Services of Pan American. Scientific and technical information relating to Dolores, Huaron, Morococha, and San Vicente is based on information prepared and reviewed by Michael Steinmann, Martin Wafforn and Americo Delgado, P. Eng., Director of Metallurgy for Pan American. Scientific or technical information relating to the geology of particular properties, and the current and planned exploration programs described in this AIF, are prepared and/or designed and carried out under the supervision of, or have been reviewed by, Martin Dupuis, P.Geo., Director of Geology for Pan American. Scientific and technical information herein relating to the Navidad property is based on information contained in the Navidad Report (as defined below) and the disclosure in this AIF about the Navidad property has been reviewed and consented to by Michael Steinmann, Martin Wafforn and Pamela De Mark, P.Geo., Director of Resources for Pan American, the experts involved in the preparation of the applicable sections of the Navidad Report. In particular, scientific or technical information in this AIF relating to the estimation of mineral resources for the Navidad property was prepared by Pamela De Mark. All other disclosures of scientific and technical information contained in the descriptions of our mineral properties were prepared under the supervision of Michael Steinmann and Martin Wafforn. Each of Michael Steinmann, Martin Wafforn, Pamela De Mark, Americo Delgado, and Martin Dupuis is a "Qualified Person" as defined in National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101"). A "Qualified Person" means an engineer or geoscientist with a university degree, or equivalent accreditation, in an area of geoscience, or engineering, relating to mineral exploration or mining, with at least five years of experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these, that is relevant to his or her professional degree or area of practice, has experience relevant to the subject matter of the mineral project, and is a member in good standing of a professional association.

Scientific and technical disclosure in this AIF for our material properties is based on technical reports prepared for those properties in accordance with NI 43-101 (collectively, the "Technical Reports"). The Technical Reports have been filed on SEDAR at www.sedar.com. The technical information in our AIF has been updated with current information where applicable. The Technical Reports are as follows:

- a report entitled “Technical Report – Preliminary Economic Analysis for the Expansion of the La Colorada Mine, Zacatecas, Mexico”, with an effective date of December 31, 2013 (the “La Colorada Report”) relating to the La Colorada mine;
- a report entitled “Feasibility Study Volume I – NI-43-101 Technical Report for Alamo Dorado Project, Alamos, Sonora, Mexico” dated March 31, 2005 (the “Alamo Report”) relating to the Alamo Dorado mine;
- a report entitled “Technical Report for the Dolores Property, Chihuahua, Mexico - Preliminary Economic Assessment of a Pulp Agglomeration Treatment and Underground Option”, with an effective date of May 31, 2014 (the “Dolores Technical Report”) relating to the Dolores mine;
- a report entitled “Technical Report for the Huaron Property, Pasco, Peru” dated effective June 30, 2014 (the “Huaron Report”) relating to the Huaron mine;
- a report entitled “Technical Report for the Morococha Property, Yauli, Peru” dated effective June 30, 2014 (the “Morococha Report”) relating to the Morococha mine;
- a report entitled “Technical Report for San Vicente Property, Potosi, Bolivia” dated effective December 31, 2014 (the “San Vicente Report”) relating to the San Vicente mine;
- a report entitled “Manantial-Espejo Project Canadian Standard NI 43-101, Santa Cruz Province, Argentina” dated March 2006 (the “Manantial Report”) relating to the Manantial Espejo mine; and
- a report entitled “Pan American Silver Corp.: Navidad Project, Chubut Province, Argentina: Preliminary Assessment” dated January 14, 2011 (the “Navidad Report”) relating to the Navidad property.

Cautionary Note to U.S. Investors Concerning Estimates of Mineral Reserves and Mineral Resources

This AIF and the documents incorporated by reference in it, if any, have been prepared in accordance with the requirements of Canadian securities laws that differ from the requirements of U.S. securities laws. Unless otherwise indicated, all mineral reserve and mineral resource estimates included in this AIF and the documents incorporated by reference herein have been prepared in accordance with NI 43-101 and the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) - Definition Standards adopted by the CIM Council. NI 43-101 is a rule developed by the Canadian Securities Administrators that establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects.

Canadian public disclosure standards, including NI 43-101, differ significantly from the requirements of the U.S. Securities and Exchange Commission (the “SEC”), and information with respect to mineralization and mineral reserves and mineral resources contained or incorporated by reference herein may not be comparable to similar information disclosed by U.S. companies. In particular, and without limiting the generality of the foregoing, these documents use the terms ‘‘Measured Resources’’, ‘‘Indicated Resources’’ and ‘‘Inferred Resources’’. U.S. investors are advised that, while such terms are recognized and required by Canadian securities laws, the SEC does not recognize them. The requirements of NI 43-101 for identification of ‘‘reserves’’ are not the same as those of the SEC, and reserves reported by Pan American in compliance with NI 43-101 may not qualify as ‘‘reserves’’ under SEC standards. U.S. investors should also understand that ‘‘Inferred Resources’’ have a great amount of uncertainty as to their existence and as to their economic and legal feasibility. **U.S. investors are cautioned not to assume that any part of a ‘‘Measured Resource’’ or ‘‘Indicated Resource’’ will ever be converted into a ‘‘reserve’’. It cannot be assumed that all or any part of ‘‘Inferred Resources’’ exist, are economically or legally mineable or will ever be upgraded to a higher category.** Under Canadian securities laws, ‘‘Inferred Resources’’ may not form the basis of feasibility or pre-feasibility studies except in certain cases. Disclosure of ‘‘contained ounces’’ in a mineral resource is a permitted disclosure under Canadian securities laws, however, the SEC normally only permits issuers to report mineralization that does not constitute ‘‘reserves’’ by SEC standards as in place tonnage and grade, without reference to unit measures. Under U.S. standards, mineralization may not be classified as a ‘‘reserve’’ unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. Accordingly, information concerning mineral deposits set forth in this AIF and the documents incorporated by reference herein may not be comparable with information made public by companies that report in accordance with U.S. standards.

CORPORATE STRUCTURE

Incorporation

Pan American is the continuing corporation of Pan American Energy Corporation, which was incorporated under the *Company Act* (British Columbia) on March 7, 1979. Pan American underwent two name changes, the last occurring on April 11, 1995, when the present name of Pan American Silver Corp. was adopted. Amendments to the constating documents of Pan American to that date had been limited to name changes and capital alterations. In May 2006, Pan American obtained shareholder approval to amend our memorandum and articles, including the increase in our authorized share capital from 100,000,000 to 200,000,000 common shares without par value ("Common Shares"), in connection with Pan American's required transition under the *Business Corporations Act* (British Columbia).

Pan American's head office is situated at 1500 - 625 Howe Street, Vancouver, British Columbia, Canada, V6C 2T6 and our registered and records offices are situated at 1200 Waterfront Centre, 200 Burrard Street, Vancouver, British Columbia, Canada, V7X 1T2.

Our website is www.panamericansilver.com.

Capital Structure

Pan American's authorized share capital consists of 200,000,000 Common Shares. The holders of Common Shares are entitled to: (i) one vote per Common Share at all meetings of shareholders; (ii) receive dividends as and when declared by the directors of Pan American; and (iii) receive a pro rata share of the assets of Pan American available for distribution to the shareholders in the event of the liquidation, dissolution or winding-up of Pan American. There are no pre-emptive, conversion or redemption rights attached to the Common Shares.

Subsidiaries

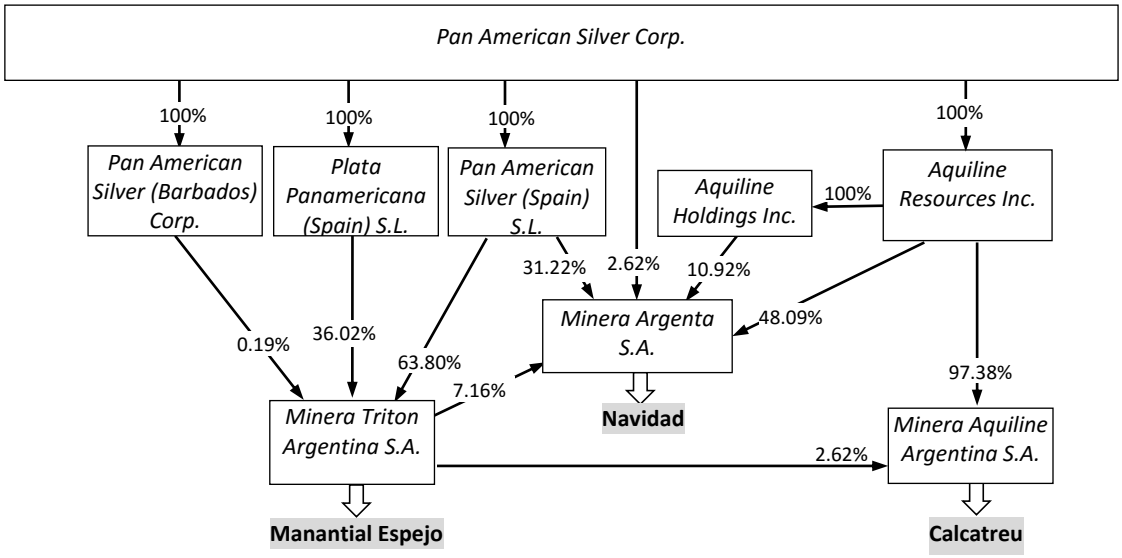
A significant portion of our business is carried on through various subsidiaries. The table below lists our significant subsidiaries and the chart following shows the structure of our organization by jurisdiction as it relates to our material mineral properties. This information is provided as at December 31, 2015.

Name of Subsidiary	Jurisdiction
Corner Bay Silver Inc. ("Corner Bay")	Canada
Aquiline Resources Inc. ("Aquiline")	Ontario
Minefinders Corporation Ltd. ("Minefinders")	Ontario
Absolut Resources Inc. ("Absolut")	Yukon
Pan MacKenzie Resources Inc.	Delaware
PAS (Lux) S.á r.l.[1]	Luxembourg
Pan American Silver (Barbados) Corp. ("Pan American Barbados")	Barbados
Aquiline Holdings Inc. ("Aquiline Barbados")	Barbados
PASCAP Insurance (Barbados) Ltd. ("PASCAP")[1]	Barbados
Pico Machay Cayman Limited ("PM Cayman")	Cayman Islands
Plata Panamericana (Spain) S.L.	Spain
Pan American Silver (Spain) S.L.	Spain
Minera Triton Argentina S.A. ("MTA")	Argentina
Minera Aquiline Argentina S.A. ("MAA")	Argentina
Minera Argenta S.A. ("MASA")	Argentina
PASMEX, S.A. de C.V. ("PASMEX")	Mexico
Minera Corner Bay S.A. de C.V. ("MCB")	Mexico
Plata Panamericana S.A. de C.V. ("Plata Panamericana")	Mexico
Compañía Minera Dolores, S.A. de C.V. ("CMD")	Mexico
Minera Minefinders S.A. de C.V.	Mexico
Pan American Silver Peru S.A.C. ("Pan American Peru")	Peru
Pan American Silver Huaron S.A. ("PAS Huaron")	Peru
Compañía Minera Argentum S.A. ("Argentum")	Peru
Minera Calipuy S.A.C. ("Minera Calipuy")	Peru
Minera Pico Machay S.A.C. ("MPM")	Peru
Pan American Silver (Bolivia) S.A. ("PASB")	Bolivia

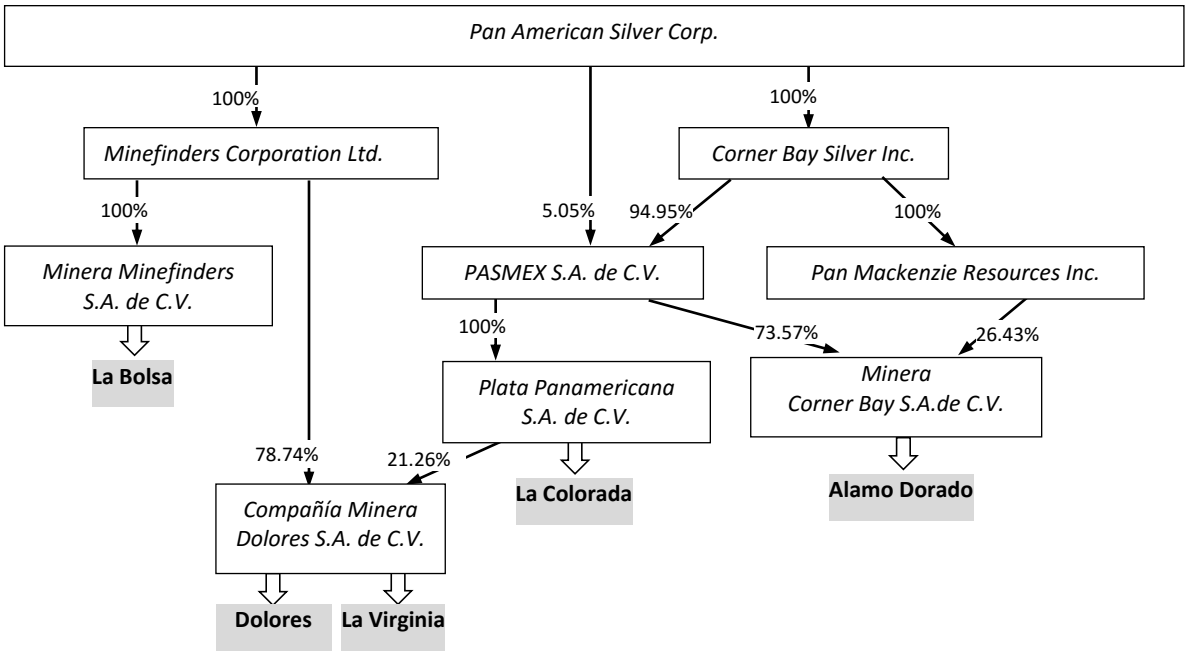
Note:

1 PAS (Lux) S.á r.l. and PASCAP are 100% owned by Pan American.

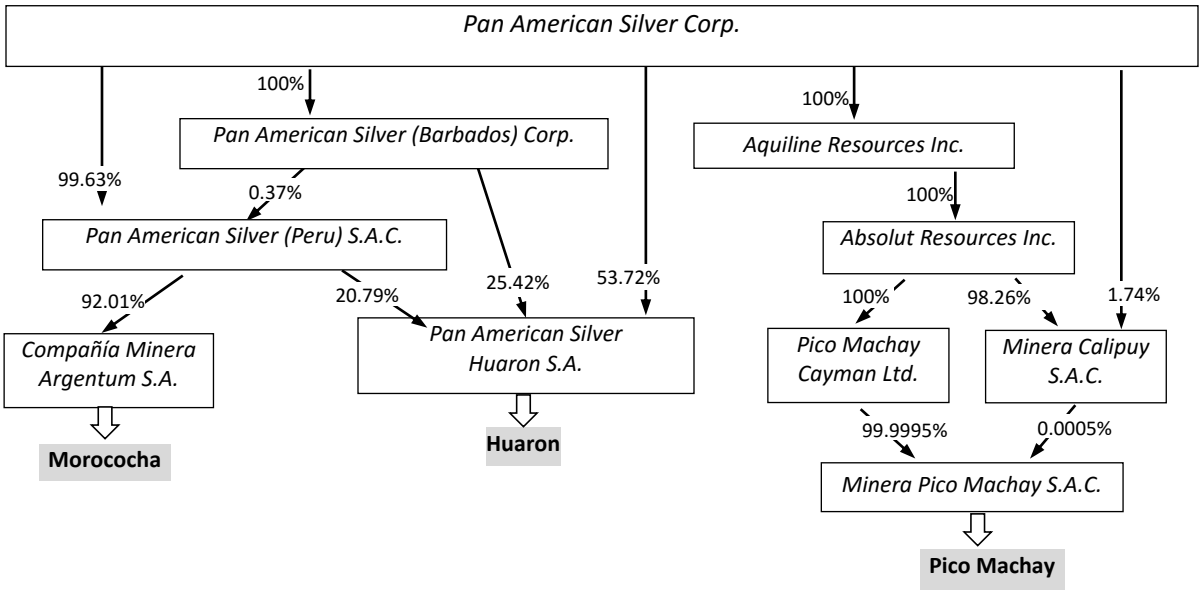
Argentina Properties



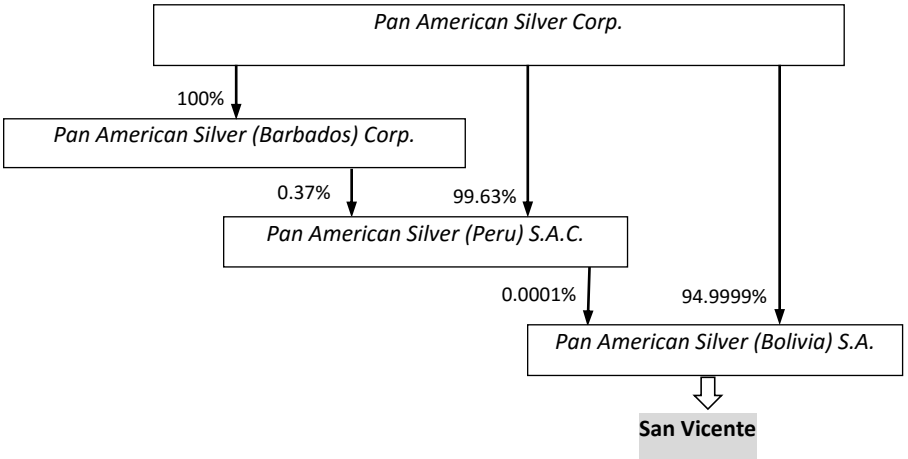
Mexico Properties



Peru Properties



Bolivia Properties



Note:

In some jurisdictions in which we operate, laws require that a company operating mineral properties must have more than one shareholder. For those jurisdictions, a nominal interest may be held by an individual or other affiliated entity and this may not be represented on the charts. Percentages shown indicate ownership of common share and other voting interests and do not include holdings of investment shares in Peru or other non-voting shares. Percentages are rounded (in most cases, to a maximum of two decimal places).

GENERAL DEVELOPMENT OF THE BUSINESS

Business of Pan American

We are principally engaged in the operation and development of, and exploration for, silver producing properties and assets. Our principal product is silver, although we also produce and sell gold, zinc, lead, and copper. At present, we carry on mining operations and are developing mining projects in Mexico, Peru, Argentina and Bolivia, and have control over non-producing silver assets in each of those jurisdictions and in the United States. Exploration work is carried out in all of those countries, as well as elsewhere throughout the world.

Corporate Strategy and Financial Objectives

Our mission is to be the world's preeminent silver producer with a reputation for excellence in discovery, engineering, innovation and sustainable development. We will continue to strengthen our position as one of the world's leading primary silver mining companies by acquiring or discovering silver resources that have the potential to be developed economically and to add meaningfully to our production profile while lowering consolidated unit costs of production.

The key elements of our strategy are to:

Strategy	Implementation
Increase production	After acquiring our first operating mine (Quiruvilca in Peru) in 1995, we have increased annual silver production almost every year, and in 2015 achieved record annual production of 26.12 million ounces of silver. We also increased gold production to a record high 183,700 ounces in 2015, a 14% increase over gold production in 2014. This long-term growth has been accomplished through a combination of acquisition, development and expansion efforts. In 2016, Pan American expects to produce between 24.0 and 25.0 million ounces of silver and between 175,000 and 185,000 ounces of gold.
Increase mineral reserves and mineral resources	During the last 12 years, our mine-site exploration efforts (excluding acquisitions) have been very successful, adding over 293 million ounces of silver to our proven and probable mineral reserves, which more than replaced the 291 million ounces of silver mined in that same period. While 2015 was another successful year for exploration, the discovery and definition of approximately 22.5 million ounces of new proven and probable silver mineral reserves was insufficient to replace the approximately 33.5 million contained ounces that were mined during the year. Additionally, approximately 8.9 million ounces of silver were lost from mineral reserves as a result of re-categorization, primarily due to lower metal prices. At December 31, 2015, our proven and probable silver and gold mineral reserves were approximately 280.1 million and 2.1 million ounces, respectively, down from the 299.9 million ounces of silver and 2.3 million ounces of gold at the end of 2014. Our measured and indicated mineral resources were approximately 721 million ounces of silver and 1.6 million ounces of gold as at the end of 2015. This represents a small decrease from 2014.
Continue to be a "Low Cost Producer"	Full year 2015 consolidated cash costs[1] to produce an ounce of silver were approximately $9.70, net of by-product credits, which was approximately 15% lower than 2014 cash costs and below management's guidance of between $10.00 and $10.50 per ounce of silver. AISCSOS[1] for the full year 2015 declined by 17% from 2014 to $14.92 per ounce of silver. Our strategy continues to emphasize reducing overall unit production costs. Cash costs for the full year 2016 are forecast at between $9.45 and $10.45 per ounce of silver, net of by-product credits, while full year AISCSOS is expected to be between $13.60 and $14.90 for 2016.
Acquire additional silver properties	We actively investigate and evaluate strategic opportunities to acquire promising silver production, development and exploration properties in those jurisdictions where we are presently active as well as elsewhere throughout the world. This includes our acquisition of the Dolores mine and the La Bolsa property by virtue of acquiring Minefinders in 2012, and the acquisition of the Navidad, Calcatreu and Pico Machay properties pursuant to our acquisition of Aquiline in 2010.

Maintain strong financial performance from mining operations	In an effort to ensure we continue to have a strong and prosperous business, financial performance is monitored against targets for operating earnings and cash flow from operations, as well as against operating measures such as production and cash costs.
Continue to be a responsible company, committed to sustainable development	We are committed to operating our business in accordance with the highest standards of governance and ethics, and the principles of sustainable development. We also place a high priority and particular emphasis on the health and safety of our personnel. We have operations in a number of countries and across diverse cultures that have the potential to impact their host communities and nearby populations both positively and negatively. Our goal is to minimize the negative impacts and maximize the benefits garnered to local populations, while at the same time achieving success from a business perspective. We conscientiously strive to operate within a framework of moral principles and values and to engage and interact regularly, and in an open and honest way, with governments, shareholders, employees, local communities, business partners and other stakeholders affected by our operations. We have adopted, among other things, a Global Code of Ethical Conduct and a Global Anti-Corruption Policy, an Environmental Policy and a Corporate Social Responsibility Policy, that formalize how we must conduct our business and interact with stakeholders and others. We are aware that our business is in many ways dependent on these various stakeholders and we view establishing relationships of mutual trust and respect as important. By building such relationships and conducting ourselves in a transparent manner, we can further the exchange of information, address specific concerns of stakeholders and work cooperatively and effectively towards achieving mutual goals. We report annually on our sustainable development performance according to the Global Reporting Initiative Framework, with the current report available on Pan American's website.

Note:

[1] Cash costs and AISCSOS are non-GAAP measures and do not have standardized meanings prescribed by Canadian accounting standards. For additional information, please see "Non-GAAP Measures" on page 2 of this AIF.

Key Developments Over the Last Three Financial Years

Year	Key Developments
2013	• Increased silver production to 26.0 million ounces and gold production to 149,800 ounces. Alamo Dorado led our silver production at 5.1 million ounces, followed by La Colorada at 4.6 million ounces, while Dolores was our largest gold contributor producing just over 65,000 ounces of gold for the year. • Invested approximately $6.7 million to repurchase approximately 415,000 of our Common Shares under our normal course issuer bid. • Paid total cash dividends of $75.8 million on our Common Shares, representing $0.50 per Common Share on an annualized basis. • Spent approximately $16.3 million on mine-site exploration and completed nearly 150 kilometres of diamond drilling. • Announced that we would be proceeding with the production expansion project at La Colorada that is expected to increase the mine's silver production rate to approximately 7.7 million ounces of silver annually by the end of 2017, for an incremental capital investment of approximately $80 million.
2014	• Produced 26.1 million ounces of silver, slightly more than in 2013, and increased gold production to 161,500 ounces. La Colorada became our largest silver producer at approximately 5.0 million ounces for the year, followed by Dolores with approximately 4.0 million ounces of silver. • Paid total cash dividends of $75.8 million on our Common Shares, representing $0.50 per Common Share on an annualized basis. • Spent $16.6 million on mine-site exploration and completed over 152.5 kilometres of diamond drilling. • In 2014, we spent approximately $17.9 million on the La Colorada expansion project and another $17.3 million on the second phase of the Dolores' pad 3 expansion. • Spent $16.6 million on mine-site exploration and completed over 152.5 kilometres of diamond drilling.

2015	• Achieved record annual silver production of just over 26.1 million ounces and increased gold production to an annual record 183,700 ounces. La Colorada continued to be our largest silver producer at approximately 5.3 million ounces for the year. Dolores was our second largest silver producer with approximately 4.3 million ounces of silver. • Established a $300.0 million revolving credit facility in the second quarter of 2015. • Paid total cash dividends of $41.7 million on our Common Shares. • Spent approximately $10.9 million on mine-site exploration and completed over 105 kilometres of diamond drilling. • Announced that we would proceed with the Dolores expansion project and made a number of advances throughout the year, including on the underground ramp and power line construction. We also continued the La Colorada expansion activities, with the shaft 50% complete by year-end, and the new sulphide processing plant approximately 70% complete. • Spent approximately $76.1 million in long term project capital to advance the La Colorada and Dolores mine expansions.

Outlook for 2016

In 2016, Pan American expects to produce between 24.0 and 25.0 million ounces of silver at consolidated cash costs of between $9.45 and $10.45 per ounce of silver, net of by-product credits. In addition, we expect to produce between 175,000 and 185,000 ounces of gold. Consolidated AISCSOS are expected to be between $13.60 and $14.90, net of by-product credits, for 2016. The Company has assumed by-product prices of Au $1,100/oz, Zn $1,700/tonne, Pb $1,600/tonne and Cu $4,600/tonne in the calculation of the forecast 2016 cash costs and AISCSOS.

Also in 2016, Pan American expects to spend between $65.0 million and $75.0 million in sustaining capital at its operating mines, including approximately $39.0 million to $42.0 million at Dolores. In addition, the Company expects to invest between $135.0 million and $140.0 million in project development, primarily in connection with the La Colorada and Dolores expansions.

Cash costs and AISCSOS are non-GAAP measures and do not have standardized meanings prescribed by Canadian accounting standards. For additional information, please see “Non-GAAP Measures” on page 2 of this AIF.

NARRATIVE DESCRIPTION OF THE BUSINESS

Principal Products and Operations

Our principal products and sources of sales are silver and gold doré and silver bearing zinc, lead, and copper concentrates. In 2015, the Huaron, Morococha, Alamo Dorado, Dolores, La Colorada, Manantial Espejo and San Vicente mines accounted for all of our production of concentrates and doré.

Consolidated production for the year ended December 31, 2015 was as follows:

	La Colorada	Alamo Dorado	Dolores	Huaron	Morococha[1]	San Vicente[2]	Manantial Espejo	Total
Tonnes Milled[3]	485,000	1,799,000	6,109,000	895,000	637,000	331,000	775,000	11,030,000
Grade								
Silver - g/t	379	62	44	157	124	422	158	94
Gold - g/t	0.28	0.39	0.57	0.24	0.41		3.28	N/A
% Zinc	2.20%			2.41%	2.83%	2.65%		N/A
% Lead	1.01%			1.08%	0.71%	0.32%		N/A
% Copper				0.97%	1.52%			N/A
Production								
Ounces Silver[3]	5,327,000	2,970,000	4,250,000	3,705,000	2,165,000	4,118,000	3,583,000	26,119,000
Ounces Gold[4]	2,630	20,340	79,140	1,050	3,220	-	77,320	183,700
Tonnes Zinc[4]	8,910			13,550	11,370	6,820		40,650
Tonnes Lead[4]	4,260			6,920	2,560	840		14,580
Tonnes Copper[4]		100		6,700	8,160			14,960

Notes:

1 Morococha data represents our 92.3% interest in mine production based on ownership of the operating entity.

2 San Vicente data represents our 95% interest in mine production based on ownership of the operating entity.

3 Rounded to the nearest thousand.

4 Rounded to the nearest ten.

Our revenue by product category for the financial years ended December 31, 2015 and December 31, 2014 was as follows:

Product Revenue	2015	2014
	($000's)	($000's)
Silver and Gold Doré	400,790	424,591
Zinc Concentrate	54,239	73,487
Lead Concentrate	135,926	163,854
Copper Concentrate	83,733	90,010
Total[1]	**674,688**	**751,942**

Note:

1 Total may vary due to rounding.

Additional information related to our segmented information is set forth in Note 25 to the Pan American's Audited Consolidated Financial Statements for the year ended December 31, 2015 and is referred to in the 2015 MD&A under the heading "2015 Operating Performance".

Silver and Gold Doré

Our principal buyers of silver and gold doré produced from our Dolores, Alamo Dorado, La Colorada, and Manantial Espejo mines, once refined, are international bullion banks and traders. Silver and gold doré is delivered to refineries in Mexico, Germany, and the United States, and subsequently transferred to the accounts of our buyers.

Zinc, Lead and Copper Concentrates

Our principal markets for copper concentrates produced from Morococha, Huaron, and occasionally from San Vicente, as well as a unique copper precipitant product from Alamo Dorado, are Canada, Chile, and China through a number of contracts with smelters and traders. Copper concentrates are delivered to customers first via truck to seaports, and from there by ship.

Our principal markets for zinc concentrates produced from La Colorada, Morococha, Huaron and San Vicente, are Peru, South Korea and Japan through a number of contracts with smelters and traders. Zinc concentrates are delivered to Peruvian customers by truck. Zinc concentrates are delivered to customers in South Korea and Japan first via truck to seaports, and from there by ship.

Our principal markets for lead concentrates produced from La Colorada, Morococha, Huaron and San Vicente, are Japan, South Korea, China, and Belgium through a number of contracts with traders. Lead concentrates are delivered first via truck to seaports and from there by ship.

Please see the discussion under “Risks Relating to Our Business – Trading Activities and Credit Risk”.

Employees

At the end of 2015, we had approximately 4,100 employees and almost 2,400 contractors. The majority of those employees and contractors were working at our operations in South America and in Mexico. Pan American also had 38 employees and one contractor at our head office in Vancouver as at December 31, 2015. Our Peruvian operations had approximately 2,600 total employees and contractors, while our Bolivian operations had over 500 employees and contractors, our Argentinean operations had approximately 700 employees and contractors and our Mexican operations had slightly more than 2,600 employees and contractors.

Research and Development

We conduct research and development activities through feasibility work and operational enhancement evaluations in order to develop improved production processes and exploration techniques. Costs associated with this work are usually expensed as incurred. Apart from the expansion studies conducted at La Colorada and Dolores, as well as the process flowsheet development at Navidad, we did not incur, or specifically account for, any significant research and development costs during 2013, 2014 or 2015.

Working Capital and Liquidity Position

As at December 31, 2015, we had cash and short-term investment balances of $226.6 million and working capital of $392.2 million, and our total debt outstanding at the end of 2015 was $59.8 million.

On April 15, 2015, we entered into a senior secured revolving credit facility (the "Facility") with a syndicate of eight lenders. The Facility is a US$300 million secured revolving line of credit that matures on April 15, 2019 and is available for general corporate purposes, including acquisitions. The terms of the Facility provide the Company with the flexibility of various borrowing and letter of credit options. With respect to loans drawn based on the average annual rate of interest at which major banks in the London interbank market are offering deposits in US dollars ("LIBOR"), the interest margin on such loan is between 2.125% and 3.125% over LIBOR, depending on the Company's leverage ratio at the time of a specified reporting period. $36.2 million was drawn from the Facility in December 2015 and remains outstanding as of the date of this AIF.

Our financial position at December 31, 2015, and the operating cash flows that are expected over the next twelve months lead management to believe that our liquid assets are sufficient to satisfy our 2016 working capital requirements, fund currently planned capital expenditures (including both sustaining and project capital) for

existing operations, and to discharge liabilities as they come due. We also remain well positioned to take advantage of further strategic opportunities as they become available.

Environment

All phases of our operations are subject to environmental regulation in the various jurisdictions in which we operate. To the best of management's knowledge, our activities in 2015 were, and continue to be, in compliance in all material respects with such environmental regulations applicable to our mining operations, development, and exploration activities. We have implemented an environmental policy, a corporate social responsibility policy, and a health and safety policy in which we accept our corporate responsibility to practice environmental protection and provide a safe and healthy workplace for our employees, and commit to comply with all relevant industry standards, environmental legislation and regulations in the countries where we carry on business.

During 2015, reviews of the environmental performance of all the operations and projects were conducted by Pan American's Vice President of Environment and Sustainability. The reviews included inspections of the mine and project sites with key operations personnel, a review of environmental monitoring program procedures and results and a review of the principal environmental issues related to each of these operations. The key observations and recommendations from the reviews are reported monthly to senior management and quarterly to the Board of Directors of Pan American (the "Board of Directors"). In addition to the periodic reviews, detailed Corporate Environmental Audits are conducted at each mine at least once every two years, in accordance with the Mandate of the Board's Health Safety and Environment Committee. These audits review environmental compliance and implementation of best practice procedures and management systems. During 2014, audits were undertaken at Morococha, San Vicente, and Huaron and in 2015, Alamo Dorado, La Colorada, Dolores and Manantial Espejo were audited. In intervening years between audits, the implementation of the corrective actions required by each audit is checked at each mine and the Morococha, San Vicente and Huaron corrective actions were found to be satisfactory in 2015.

Our Huaron, Morococha, La Colorada, Alamo Dorado, Dolores, San Vicente, and Manantial Espejo operations were all inspected by government agencies in 2015 and no material issues were observed during these inspections.

The Peruvian government modified its receiving water quality limits in December 2015. The new limits remove a controversial sulphate limit which was previously proposed, bringing the limits in line with current international and North American standards and significantly reducing the potential cost impacts to our Peruvian operations. We are conducting a new baseline assessment at each of our two operating mines in Peru in order to evaluate the potential impact of the latest changes to water treatment practices at each operation. We have requested the return of previously presented Adaptation Plans from the Ministry of Energy and Mines. Once returned, we will have 12 months to present new Adaptation Plans if any upgrades are required to meet the new limits at either Huaron or Morococha. We commenced implementation of measures such as water treatment plant automation at Huaron and separation of clean runoff and contact water at Morococha in 2015 which make them well placed to meet the new limits without material economic impacts to our operations.

We completed our comprehensive Sustainability Report for 2014 in accordance with the Global Reporting Initiative guidelines and improved our disclosure and report quality to be in accordance with the new G4 guidelines. The report includes detailed information on our environmental, social, economic, and health and safety performance. The Sustainability Report is available at our head and country offices and also on our website.

In the financial year-end dated December 31, 2015, our environmental expenditures for concurrent reclamation were approximately $2.8 million. The closure and decommissioning liabilities were prepared using the standard reclamation cost estimator methodology developed in the State of Nevada, USA, using quantity estimates and cost data obtained at each mine site. We estimate the aggregate present value of expenditures required for closure and reclamation costs in respect of the Huaron, Morococha, Alamo Dorado, La Colorada, Dolores, Manantial Espejo, and San Vicente mines, along with our development properties, to be approximately $50.5

million, which is an increase from the previous estimate at December 31, 2014, due primarily to normal course disturbance growth from operations, revisions to certain cost input estimates, and changes to the Alamo Dorado closure plan assumptions based on technical studies completed in 2015.

Other than specific environmental concerns discussed in more detail elsewhere in this AIF, we are not aware of any material environmental matter requiring significant capital outlays in the immediate future. Closure and reclamation costs and actual costs may vary, perhaps materially, from estimates and investors are cautioned against attributing undue certainty to these estimates. The reclamation and closure costs estimate for each of the operating mines and development projects was updated to reflect the conditions as of December 31, 2015.

Health and Safety

We have implemented a health and safety policy in which we accept corporate responsibility to provide a safe and healthy workplace for our employees and contractors, and commit to comply with all relevant industry standards, legislation, and regulations in the countries where we carry on business. The policy is reviewed annually to ensure that we remain current, if not ahead, of industry standards and best practices.

Periodically, both formal and informal corporate health and safety audits are conducted at our operating mines and active development properties. In 2015, all of our seven operating mines were subject to internal safety audits conducted by a team of safety managers and operations supervisors from some of our other operations and led by Pan American's Director of Health and Safety. Management reports health and safety findings and mitigation progress to our Board of Directors on a regular basis.

During 2015, we continued to focus on introducing new safety programs and training at our operating mines in Peru as well as maintaining excellent safety records at the other mines and development projects. The total hours worked at operating mines and active development and exploration projects declined by approximately 5% versus 2014 while the number of lost time injuries ("LTI") decreased by approximately 9% to 19. We recorded a lost time injury frequency ("LTIF") of 1.09 during 2015, compared to 1.14 during 2014 and 0.94 during 2013. LTIF is calculated as follows:

$$LTIF = \frac{(\#\ of\ accidents) * (1{,}000{,}000)}{Total\ hours\ worked}$$

Unfortunately, despite continued efforts on mine safety, the Company experienced 5 fatalities during 2015. As a result of these fatalities, the Company has focussed further attention on developing a specialized fatality reduction initiative to bolster its existing programs and to create even greater awareness in order to significantly reduce the occurrences of unpredictable events that are often at the root of serious incidents.

In 2005, we introduced the "Chairman's Safety Award" which is presented to our mine with the best overall safety performance. In 2015, two of our Mexican mines (La Colorada and Alamo Dorado) and our exploration and active development properties had perfect safety records with no LTIs. The winner of the Chairman's Safety Award for 2015 was the Morococha mine.

Operating and Development Properties

Pursuant to National Instrument 51-102 – *Continuous Disclosure Obligations*, ("NI 51-102"), we have identified the following properties and projects as being material: the La Colorada mine, the Alamo Dorado mine, the Dolores mine, the Huaron mine, the Morococha mine, the San Vicente mine, the Manantial Espejo mine, and the Navidad property. We do not consider any of our other development or investment properties to be material properties for the purposes of NI 51-102.

Certain statements in the following property summaries are based on and, in some cases, extracted directly from the relevant Technical Reports identified under the heading "Scientific and Technical Information" beginning on page 6.

Mineral Reserve and Mineral Resource Estimate Information

The process for economic assessment of the mineral reserves and mineral resources at our properties is described below in each property section. Although we believe that our mineral reserve and mineral resource estimates will not be materially impacted by external factors such as metallurgical, safety, environmental, permitting, legal, taxation, and other factors disclosed in this AIF, there can be no assurance that these factors will not have an impact. There are numerous uncertainties inherent in estimating mineral reserves and mineral resources. The accuracy of any mineral reserve and mineral resource estimation is the function of the quality of available data and of engineering and geological interpretation and judgment. Results from drilling, testing, and production, as well as a material change in metal prices or a change in the planned mining method, subsequent to the date of the estimate, may justify revision of such estimates and may differ, perhaps materially, and investors are cautioned against attributing undue certainty to mineral reserves and mineral resources.

I. Operating Properties

A. Mexico

(i) La Colorada Mine

Project Description, Location, and Access

The La Colorada underground silver mine is located in the Chalchihuites district in Zacatecas State, Mexico, approximately 99 kilometres south of the city of Durango and 156 kilometres northwest of the city of Zacatecas. The La Colorada mine is accessed primarily from the cities of Durango and Zacatecas by paved highway and all weather gravel roads.

Our wholly-owned subsidiary, Plata Panamericana, owns and operates the mine. The La Colorada property, including certain exploration concessions outside the mining area, is comprised of 56 mining claims totalling approximately 8,395 hectares. We pay an annual fee to maintain the claims in good standing, and to our knowledge, we have met all of the necessary obligations to retain the project.

We have control over approximately 1,119 hectares of surface rights covering the main workings. All of the La Colorada mineral reserves and mineral resources and all of the known mineralized zones, mine workings, the processing plant, effluent management and treatment systems, and tailings disposal areas are located within the mining claims controlled by us.

To the best of our knowledge, La Colorada is not subject to any royalties, overrides, back-in rights, payments, or other agreements and encumbrances, other than governmental taxes, fees and duties. The Company's Mexican operations are subject to governmental taxes, fees and duties, including: (i) a special mining duty ("SMD") of 7.5% applied to taxable earnings before interest, inflation, taxes, depreciation, and amortization; and (ii) a deductible extraordinary mining duty ("EMD") of 0.5% that is applied to the sale of gold, silver, and platinum.

While there are no known significant factors or risks that we currently anticipate will affect access or title, or the right or ability to perform work on the property, including permitting and environmental liabilities, please refer to "Risks Related to Our Business" starting on page 76 for a general discussion of the risks relating to our operations.

History

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 tonne 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 Compañía de Industrias Peñoles also conducted mining operations on the property. From 1949 to 1993, Compañía de Minas Victoria Eugenia S.A. de C.V. operated a number of mines on the La Colorada property. In 1994, Minas La Colorada S.A. de C.V. ("MLC") acquired the exploration and exploitation claims and surface rights of Compañía 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 at a rate of approximately 150 tonnes per day ("tpd").

Historically, exploration has been in the form of development drifting on the veins. Prior to our ownership, 131 diamond drill holes had been drilled. In 1997, we entered into an option agreement with MLC, during which time we conducted exploration and diamond drilling programs as part of our due diligence reviews. We acquired the La Colorada mine from MLC in April 1998 and have focussed our production on the Candelaria, Estrella, and Recompensa mines. No activity takes place at the Campaña mine.

Geological Setting, Mineralization, and Deposit Types

The La Colorada property is located on the eastern flanks of the Sierra Madre Occidental mountain range at the contact between the Lower Volcanic Complex and the Upper Volcanic Supergroup. The oldest rocks exposed in the mine area are carbonates and calcareous clastic rocks overlain by a conglomerate unit. Most of the outcrop in the mine area is altered dacite of the regional Lower Volcanic Complex. The stratigraphically highest rocks in the mine area are felsic tuffs correlated with the Upper Volcanic sequence.

Thirteen breccia pipes up to 100 metres in diameter have been identified on the property, which can extend vertically more than 400 metres below the surface. The breccias contain clasts of limestone and trachyte, often mineralized, in an altered trachyte matrix. Clasts of vein material have been found in the breccias suggesting that the pipes postdate the vein emplacement.

East to northeast striking faults dipping mostly moderately to steeply to the south form the dominant structures in the project area and controlled the deposition of mineralization by acting as conduits for mineralizing hydrothermal fluids.

La Colorada is 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 three separate active mining areas on the property, including the Candelaria, Estrella, and Recompensa areas. The main structure at Candelaria strikes generally east west. The west part of the vein is referred to as HW and the east part is referred to as NC2, and there are a number of off-splits from these veins. The Estrella area includes the Amolillo vein, which is a split from the HW vein, and the Palomas vein, which is a split from Amolillo. The Recompensa zone produces or has produced from three areas: the Recompensa vein; Erika, which is a split from the Recompensa vein; and the Yuri replacement body, which lies between Erika and Recompensa.

Four dominant styles of mineralization are present at La Colorada, including breccia pipes, vein-hosted mineralization, replacement mantos within limestone, and deeper seated transitional mineralization.

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 chalcopyrite 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 and are generally less than two metres in width. The HW Corridor at the Candelaria mine strikes east-west and dips moderately to the south, with true widths of approximately up to 15 metres, but most of the economic mineralization is located in quartz veins, which are on average one to two metres wide. Where the veins are

unoxidised, galena, sphalerite, pyrite, native silver, and silver sulphosalts are present. The major mineralized veins are strongly brecciated and locally oxidised.

Manto style mineralization is found near vein contacts where the primary host rock is limestone. This style of mineralization was previously mined at Recompensa and is also present in areas of the Candelaria zone. The mantos can form bodies up to six metres wide. The mineralogy of the mantos is characterized by galena and sphalerite with minor pyrite and chalcopyrite.

The deep seated transition mineralization, also known as NC2 Deep at the Candelaria mine, consists of both vein type mineralization and more diffuse stockwork and breccia zones.

Deep drilling has defined a restricted manto replacement body with lower silver-gold grades and higher lead zinc grades at the 1,000 metre level and remains open to depth. It is adjacent to the known vein system which continues at that depth.

The current mineral resource and mineral reserve currently comprises vein and manto hosted mineralization. The economically most important veins are the NC2 and NCPHW veins at the Candelaria mine which together comprise 35% of the total mineral reserve ounces of silver as well as the Amolillo vein at the Estrella mine which contains a further 37% of the total mineral reserve. The majority of the silver mineralization is found in the quartz veins which range from 2.0 to 2.9 metres wide.

The NC2 vein contains approximately 16% of the mineral resource and mineral reserve ounces of silver. It is a narrow, one to seven metre wide mainly sulphide and partly oxide vein with a strike length of over 900 metres. It is open to the east where it is cut by a trachyte dyke, and has been confirmed by drilling and drifting to continue in both width and grade on the other side of the dike. We drilled a hole that intersected the vein 400 metres below the current mineral reserves and believe the down-dip exploration potential is significant. There are a number of other splits from this vein numbered NC1 to NC9 that combined contain approximately 32% of the mineral resource and mineral reserve ounces of silver (including NC2).

The HW vein, also at the Candelaria mine, is a one to two metre thick vein with a strike length of over 1.1 kilometres. The HW Corridor consists of four structures. The majority of the silver mineralization is found in quartz veins which average two metres wide but can widen up to six to seven metres at the intersections with the HW vein.

At the Estrella mine, the Amolillo oxide/sulphide vein is located 500 metres north of the NC2 and HW vein complex and approximately along strike to the east of the Recompensa vein. The vein has an average width of 1.8 metres and a strike length of approximately 1,300 metres. Our drilling results indicate that the Amolillo vein could be key to a possible mine expansion. Diamond drilling has intersected the vein 450 metres below the deepest mining level, and expanded the lateral extension to the east and west by 900 metres for a total of 1,300 metres of current strike length.

The Recompensa mine contributes the fewest silver ounces to the mineral resources and mineral reserves. The main zones being exploited are the Recompensa and Erika veins and the Yuri manto replacement body located between the two veins. The Recompensa and Yuri are located more than a kilometre northwest of the NC2 and HW vein complex. The vein mineralization averages about 1.6 metres wide in the economically mineable zones, and contains a minor amount of oxide but mostly sulphide material. Erika is a hangingwall split from the Recompensa vein and is relatively narrow at an average width of 0.7 metres in the economically mined zone. It contains only sulphide material.

Exploration

Mining had taken place at La Colorada for several decades prior to any modern exploration work, identifying most of the major structures. For this reason there has been little surface sampling or geophysics and other surveys. For the past several years we have typically drilled on the order of 100 to 200 drillholes each year from surface and underground. All drilling at La Colorada is diamond core drilling and is performed from both

surface and underground by either company employees with a company owned drill or by specialized drilling contractors under the supervision of the La Colorada mine geology department. Channel sampling is performed in ore development and stopes. There are no known sample recovery, contamination, or bias issues that could have a material impact on the reliability of the sample results. The results of the drillhole and channel samples are used for the estimation of mineral resources and mineral reserves.

Drilling

The drilling database contains on the order of thousands of drillholes from both surface and underground. In the past, underground holes were drilled BQ size until 2000 when the drillhole diameter in the HW corridor was increased to HQ size to improve core recovery. From 2008 to present the surface hole size has been increased to HQ and underground holes are drilled either at HQ, NQ or BQ sizes depending on the location and/or depth of the holes.

Sampling, Analysis, and Data Verification

Channel sampling is performed by sampling crews under the supervision of the mine geologist. Both channel and drill core sample intervals are approximately a metre in width. We have identified no drilling, sampling, or recovery factors that could materially impact the reliability of the results, and the data is considered acceptable for mineral resource and reserve estimation. There are no known factors that could have resulted in any sample biases.

Underground channel samples are brought directly from one of the portals to the on-site laboratory at the end of each shift. Underground drill cores are brought from underground to the core shack, which is fenced and locked when there are no geology department employees present. Once the drillhole has been logged and sampled, the samples are transported to the on-site laboratory. We have no reason to believe that the integrity of the samples has been compromised.

We have used four commercial labs in the past for exploration assaying at La Colorada, including Bondar Clegg (Vancouver, B.C.), ALS Chemex (Vancouver, B.C.), Luismin (Durango, Mexico) and ALS Chemex de México (Guadalajara, México). All gold and silver assays by the commercial labs have been done using fire assay with either an atomic absorption (“AA”) or gravimetric finish. Base metals were assayed using acid digestion and AA determination. All samples are now prepared at the La Colorada mine laboratory, which is ISO9001:2008 certified and operated by our employees. Samples are analyzed for gold and silver using fire assay with gravimetric finish, and for lead, zinc, and copper by acid digestion followed by AA.

The La Colorada mine geology department conducts a quality assurance/quality control (“QAQC”) program that is independent from the laboratory. The program includes the insertion of standards and blanks to the on-site laboratory and the submission of pulp duplicate samples to an external laboratory. The results of the QAQC samples demonstrate acceptable accuracy and precision and that no significant contamination is occurring at the mine laboratory. We are of the opinion that the data quality and reliability is to industry standard and is sufficient for use in resource and reserve estimation and mine planning.

Mineral Processing and Metallurgical Testing

As part of normal plant operation procedures, metallurgical analysis and testing is undertaken as required. The majority of these analyses are to assess mill performance and metallurgical recovery. Metal recovery forecasts used in our mine plans are based on the historical performance of the plant operations and the tonnes and grade of material that is planned to be mined.

Mineral Resource and Mineral Reserve Estimates

Management estimates that mineral reserves at La Colorada, as at December 31, 2015, are as follows:

La Colorada Mineral Reserves [1, 2, 3]					
Reserve Category	**Tonnes (Mt)**	**Grams of Silver per tonne**	**Grams of Gold per tonne**	**% Zinc**	**% Lead**
Proven	3.3	474	0.35	3.15	1.69
Probable	3.7	346	0.30	2.06	1.18
TOTAL	7.0	406	0.32	2.57	1.42

Notes:

1 Estimated using a price of $17.00 per ounce of silver, $1,180 per ounce gold, $1,800 per tonne of zinc and $1,800 per tonne of lead.

2 Mineral reserve estimates for La Colorada have been prepared under the supervision or were reviewed by Martin Dupuis, P. Geo., and Martin Wafforn, P. Eng., as Qualified Persons as that term is defined in NI 43-101.

3 Lead and zinc grades shown are the average for the deposit. However, the base metals are only payable in the concentrates produced from the sulphide ores and not in the doré produced from the oxide ores.

Management estimates that mineral resources at La Colorada, as at December 31, 2015, are as follows:

La Colorada Mineral Resources [1, 2, 3]					
Resource Category	**Tonnes (Mt)**	**Grams of Silver per tonne**	**Grams of Gold per tonne**	**% Zinc**	**% Lead**
Measured	0.4	234	0.22	0.85	0.47
Indicated	1.9	288	0.26	0.88	0.64
Inferred	1.9	374	0.39	4.02	2.27

Notes:

1 These mineral resources are in addition to mineral reserves. Estimated using a price of $17.00 per ounce of silver, $1,180 per ounce gold, $1,800 per tonne of zinc and $1,800 per tonne of lead.

2 Mineral resource estimates for La Colorada have been prepared under the supervision, or were reviewed by Martin Dupuis, P. Geo., and Martin Wafforn, P. Eng., as Qualified Persons, as that term is defined in NI 43-101.

3 Lead and zinc grades shown are the average for the deposit. However, the base metals are only payable in the concentrates produced from the sulphide ores and not in the doré produced from the oxide ores.

Mineral resources are estimated using a polygonal method based on the data collected from both diamond drilling and underground channel samples. A long section is produced of each structure and then divided into mineable blocks. The volume of the block is estimated from the average width of the vein or mineralization intersection of each drillhole or channel located within the mining block. The grade of each block is estimated by the length weighted average of the grade of the vein or mineralization of each intersection within the block. The samples are assessed and treated for extreme sample grades prior to averaging. Weighted average bulk density values are applied to each mining block volume to estimate the tonnes of each block. The data is processed using Excel software for each structure then combined to arrive at the total tonnes and grade of the mineral resource estimate. The mineral resource estimates are updated annually with new information and updated geological interpretations and depleted annually for mining in the previous year.

Planned dilution is applied to each intersection to achieve a minimum mining width and to account for backfill which is inadvertently mucked each lift during the cut and fill stoping. Additional unplanned dilution is also applied in order to correlate with the reconciliation between the mineral reserve and the plant results. Mining recovery is estimated depending on vein width and based on experience and observation at each mining area. A value per tonne is calculated in each block considering the value paid for each metal, the expected metallurgical recovery of each metal to concentrate or to doré, and costs including insurance, penalties, refining, and transport.

Mineral resource confidence classifications are based on the proximity and density of geological and grade information in each block, as well as the interpretation and the experience of the mine geologist. Mineral resources are then converted to mineral reserves depending on the resource classification and whether they can be economically mined.

Mineral reserve estimates are based on a number of assumptions that include metallurgical, taxation, and economic parameters. Increasing costs or increasing taxation could have a negative impact on the estimation of mineral reserves. There are currently no known factors that may have a material negative impact on the estimate of mineral reserves or mineral resources at La Colorada.

Mining Operations

The mining method used at all three mines is cut and fill stoping. This method allows for improved ore recovery and selectivity from irregular, steeply dipping veins. Ground support is provided by rock bolts, with screen and shotcrete as required, as well as by backfilling the voids created by mining with development rock or mill tailings as the ore extraction advances.

Mine levels are 30 metres vertically apart. Cut and fill stoping begins at the bottom of each 30 metre panel and works upward in horizontal slices that follow the strike, dip, and width of the ore zone. Ore extraction begins by cutting a 2 metre thick slice from the bottom of the ore zone and removing the broken ore from the stope. As each successive slice of the stope is taken, the void below is backfilled to support the side walls and to provide a stable working platform for mining the next ore slice.

Either hand-held drills or electric hydraulic jumbo drills are used for development mining to access the ore, depending on the size of the excavation required.

Ore extracted from the Candelaria and Estrella mines is currently hoisted through the El Aguila Shaft and hauled to the mill crusher stockpile. When required, Candelaria and Estrella ore can be hauled up to the surface using one of the mine access ramps. Ore extracted from the Recompensa mine is hauled to the mill crusher stockpile. Pending the results of further exploration drilling, no production is scheduled from the Recompensa mine in the current life of mine plan.

Processing and Recovery Operations

The operation currently produces approximately 430 tpd of oxide ore and 870 tpd of sulphide ore. Each type of ore is processed through separate circuits which share a single crushing plant. The daily processing capacity of the oxide plant is nominally 650 tonnes of ore and the capacity of the sulphide plant is nominally 750 tonnes.

The oxide plant comprises a conventional cyanide leach plant consisting of crushing, grinding, leaching, Merrill Crowe zinc precipitation, and on-site refining to produce precious metal doré. The sulphide plant is a conventional flotation plant comprised of crushing, grinding and selective lead and zinc froth flotation circuits to recover precious and base metals into separate lead and zinc concentrates. Tailings from both plants are delivered as slurry to separate lined tailings storage facilities. Tailings from the sulphide plant are directed as required to a hydraulic backfill plant for re-use underground as backfill in the stopes.

As the maximum capacity of the La Colorada mine in its existing configuration has been reached, an expansion project was approved in December 2013. The total throughput at La Colorada's processing plants will progressively increase from the 1,330 tpd achieved in 2015 to 1,500 tpd starting in 2016 when the shaft has been commissioned and to 1,800 tpd by the end of 2017. The mine's expansion involves the construction of new mining infrastructure, the development of new mining zones to reach deeper mineralization, the expansion of the sulphide ore processing plant, and the installation of a new power line connection to the national grid.

A new shaft under construction between the Candelaria Estrella mines, which is necessary regardless of the expansion project, will increase hoisting capacity to 2,300 tpd. Construction and commissioning of the new

sulphide plant is expected to be completed in Q3 2016. The construction of the new shaft, headframe and hoisting plant is in progress with commissioning expected to be completed by the end of 2016.

The total incremental expansion capital was estimated at $80 million. The sulphide plant expansion, additional mining equipment and accelerated development, plus several important infrastructure upgrades account for the largest portion of the incremental capital for the project.

Production at La Colorada in 2015 was approximately 5.3 million ounces of silver, 2,600 ounces of gold, 8,900 tonnes of zinc, and 4,300 tonnes of lead. In 2015, silver recovery averaged 82.4% from the oxide processing circuit and 92.9% from the sulphide processing circuit.

All precious metal doré produced at La Colorada is sent to one of two arm's length precious metals refineries for refining under fixed term contracts. After refining, the silver and gold are sold on the spot market to various bullion traders and banks. All lead and zinc concentrates produced at La Colorada are sold to arm's length smelters and concentrate traders under negotiated fixed term contracts, which consider the presence of any deleterious elements. To date, we have not experienced difficulty with renewing existing or securing new contracts for the sale of the La Colorada doré or concentrates, however, there can be no certainty that we will always be able to do so or what terms will be available in the future. We regularly review the terms of smelting and refining agreements and the terms are considered to be within industry norms. Please see "Risks Related to our Business – Trading Activities and Credit Risk".

The revenue per type of concentrate and doré produced by the La Colorada mine for the past three years were as follows:

2015	**Revenue[1, 2]**	**Quantity**
Silver and Gold in Doré	$21.5 million	1,410,000 ounces of silver 880 ounces of gold
Lead Concentrate[3]	$56.9 million	9,400 tonnes
Zinc Concentrate[3]	$11.2 million	14,930 tonnes
2014		
Silver and Gold in Doré	$21.5 million	1,165,000 ounces of silver 860 ounces of gold
Lead Concentrate[3]	$62.8 million	8,666 tonnes
Zinc Concentrate[3]	$13.7 million	13,201 tonnes
2013		
Silver and Gold in Doré	$28.5 million	1,230,000 ounces of silver 1,070 ounces of gold
Lead Concentrate[3]	$61.7 million	8,023 tonnes
Zinc Concentrate[3]	$11.3 million	12,046 tonnes

Notes:

1 Consists of sales to arm's length customers.

2 Calculated as gross revenue less treatment and refining charges.

3 Lead concentrates contain payable silver and gold. Zinc concentrates contain payable silver.

Infrastructure, Permitting, and Compliance Activities

The mine workings, processing plant, tailings and waste disposal areas, effluent management and treatment facilities, roads, and power and water lines have already been constructed and are located within the boundaries of the mining leases and surface rights controlled by us. To the best of our knowledge, all permits and licenses required to conduct our activities on the project have been obtained and are currently in good standing.

The mine purchases electrical power from the Mexican national power utility and back up diesel power is also available. As part of the La Colorada expansion project that is currently in progress, the mine is constructing a new 115 kV power line. Water for the mining operation is supplied from the underground mine dewatering systems and is adequate for the existing and planned future requirements of the mine.

An environmental impact statement ("EIS") and risk assessment on the La Colorada property was submitted to the Mexican environmental authorities in early March 1999. The EIS described the impact of proposed development and mining activities and provided conceptual plans for closure and remediation. The EIS was approved by the Mexican authorities in November 1999 and renewed in late 2010. In 2013, the Mexican authorities approved a modification to the existing environmental permits that allow the proposed expansion of the mine and process plant up to 2,000 tpd. A modification application to the plant expansion permit was approved in early 2015.

La Colorada has voluntarily participated in the Mexican Environmental Protection Authority's ("PROFEPA") "Clean Industry" Program which involves independent verification of compliance with all environmental permits and the implementation of good practice environmental management procedures and practices. The mine obtained its first certification in 2008 and has been re-certified every two years since, with the most recent certificate awarded in 2014. The mine will go through the re-certification process again in 2016.

The main environmental projects at La Colorada focus on the stability and revegetation of historic tailings facilities and an upgrade to existing mine water treatment infrastructure.

A closure cost estimate for La Colorada was prepared according to State of Nevada approved SRCE methodology in 2011 and is updated every year. Pan American has estimated the present value of the final site reclamation costs for the La Colorada property to be approximately $4.5 million as at December 31, 2015. See "Narrative Description of the Business – Environmental Protection" for further disclosure regarding forward looking statements related to reclamation costs.

Safety audits are conducted by Pan American's Director of Health and Safety and safety managers from some of our other mines. The most recent safety audits have taken place in 2014 and 2015, and as of the end of December, 2015, the mine has accumulated more than 5.5 million hours of work without an LTI.

La Colorada was the recipient of the prestigious "Casco de Plata" award for 2007, 2009, and 2014, for the best safety record for underground mines in Mexico with in excess of 500 employees, and took second place in the same category in 2013. In both 2009 and 2014, La Colorada was awarded our Chairman's Safety Award. During 2015, personnel employed at the mine attended over 45,000 hours of training.

Capital and Operating Costs

In 2015, total capital expenditures at La Colorada were approximately $58.0 million, with $48.2 million spent on expenditures related to the expansion project approved in December 2013. Advances were made on the construction of the new sulphide plant, shaft sinking and installation of the new hoist, and underground mine development to support future increased production levels. The remainder of the $58.0 million was spent on sustaining capital expenditures consisting of mine infrastructure, exploration drilling, a mine dewatering treatment plant, mine equipment, process plant improvements, and access road upgrades.

Capital spending relating to the expansion project is expected to be between $64.0 million and $66.5 million in 2016. Sustaining capital expenditures at La Colorada in 2016 are expected to be between $8.0 million and $10.5 million, including approximately $4.3 million in mine capital, the largest components being a ventilation raise and numerous equipment overhauls; $1.2 million in brownfield exploration; $1.8 million in tailings storage expansion work; and $1.0 million in general capital expenditures including access road improvements, and mine rescue equipment.

The La Colorada expansion project is anticipated to require total incremental capital of approximately $80.0 million. Including sustaining capital, the total investment during the expansion project period of 2014-2017 is estimated to be $163.8 million. Assuming a period of 2014-2023, at metal prices of $16 per ounce of silver, the incremental after tax net present value of the expansion project is estimated at $22.0 million at a 10% discount rate, with an internal rate of return of 18.0%, and a payback period of 2.9 years. Over the same period, at metal prices of $19 per ounce of silver, the incremental after tax net present value of the expansion project is estimated at $38.6 million at a 10% discount rate, with an internal rate of return of 22% and a payback period of 2.5 years.

The La Colorada Report, on which the foregoing is based, is a preliminary economic assessment. The results of this preliminary economic assessment are preliminary in nature, in that it includes inferred mineral resources that are considered too geologically speculative to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the assessment will be realized. Mineral resources that are not mineral reserves have no demonstrated economic viability.

Exploration, Development, and Production

In 2016, we anticipate producing between 5.6 million and 5.7 million ounces of silver, between 2,700 and 2,900 ounces of gold, 9,500 to 10,000 tonnes of zinc, and between 4,800 and 4,900 tonnes of lead. The 2016 mine plan contemplates a production rate of 1,350 tpd for the first nine months, with an increase to 1,600 tpd for the fourth quarter as the new sulphide plant and shaft are phased into production. With a combination of greater sulphide tonnages mined throughout the year and the additional capacity in the sulphide plant coming in during the fourth quarter, it is expected that base metal by-product production will be increasing throughout the year. We plan to undertake nearly 32,000 m of exploration drilling in 2016.

(ii) Alamo Dorado

Project Description, Location, and Access

The Alamo Dorado open pit silver mine is located 45 kilometres south-southeast of the town of Alamos in the southeast corner of the state of Sonora, near the border with the state of Sinaloa in northwest Mexico. Alamo Dorado is accessed by paved highway from the cities of Hermosillo and Ciudad Obregon into the town of Alamos, and from Alamos by an unpaved road. Major airports in the state of Sonora are located in Hermosillo and Ciudad Obregon, and the town of Alamos is also serviced by a sealed airstrip.

On February 20, 2003, Pan American acquired Corner Bay and its subsidiaries pursuant to a plan of arrangement. Our wholly-owned subsidiary, MCB, owns and operates the mine. The mine consists of two mining concessions, the 509 hectare Alamo Ocho concession and the 4,865 hectare Alamo Dorado concession, and five exploration concessions covering 6,014 hectares, and surface rights covering 763.64 hectares. We pay an annual fee to maintain the concessions in good standing, and to our knowledge, we have met all of the necessary obligations to retain the project.

Much of the surface rights with respect to Alamo Dorado are owned by an “ejido”, which is a communal land tenure held by local community groups. We have surface rights agreements with a number of local ejido groups and with certain other private land owners allowing us access and use in connection with our exploration and mining activities. Our mining operations, waste storage areas, and other facilities fall within these surface rights agreements.

All of the known mineralized zones, mineral resources and mineral reserves, mine workings, the processing plant, effluent management and treatment systems, and tailings disposal areas relating to Alamo Dorado are located within the boundaries of the Alamo Ocho and Alamo Dorado concessions and surface rights.

To the best of our knowledge, the Alamo Dorado mine is not subject to any royalties, overrides, back-in rights, payments or other agreements and encumbrances. The Company’s Mexican operations are subject to governmental taxes, fees and duties, including the SMD and the EMD.

While there are no known significant factors or risks that we currently anticipate will affect access or title, or the right or ability to perform work on the property, including permitting and environmental liabilities, please refer to "Risks Related to Our Business" starting on page 76 for a general discussion of the risks relating to our operations.

History

There is no record of any modern exploration conducted at Alamo Dorado prior to 1997, 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. Prior to our acquisition of the project in 2003, exploration at Alamo Dorado was primarily comprised of reverse circulation drill campaigns conducted annually from 1998 to 2001.

Site construction commenced in April 2005 and production of silver commenced in 2007. Open pit mining finished by year end of 2015, and the mine will process stockpiles during the first half of 2016.

Geological Setting, Mineralization, and Deposit Types

The Alamo Dorado mine is located in the Sierra Madre Occidental mountain range, a volcanic plateau that extends for hundreds of kilometres through northwestern Mexico. The volcanic sequence is divided into the Upper and Lower Volcanic Series. The Lower Volcanic Series consists of tuffs, flows, and volcanic breccias and the Upper Volcanic Series consists of ash flow and ash fall tuffs that unconformably overlie the Lower Volcanic Series.

Mining districts in the Sierra Madre are typically located along sheared and faulted structural zones formed in the Lower Volcanic Series. The rocks hosting mineralization at the mine consist of a sequence of deformed and metamorphosed, steeply dipping, marine rocks that contain minor intercalated siliceous exhalite and pillow basalt. The marine sedimentary rocks were intruded by a number of dykes and granodiorite stocks. Silver mineralization is mostly hosted by the metamorphosed volcanic rocks.

Stratiform, low sulphidation epithermal mineralization and alteration of the rocks at Alamo Dorado is controlled by a structural zone that has been folded and metamorphosed by regional deformation events. Silver and gold mineralization may have been associated with the emplacement of a diorite feldspar porphyry dyke and/or a granodiorite stock, both of which display hydrothermal alteration and contain silver mineralization.

Hypogene silver mineralization occurs predominantly as argentite with fine disseminated pyrite in quartz veins, within quartz crystals of siliceous gangue, and within fractures in siliceous gangue. It also occurs as tetrahedrite intergrown with pyrite, galena, and sphalerite. In the upper oxide environment the silver mineralization occurs in the form of silver chloride minerals, acanthite, and silver sulphosalts.

Exploration

The main form of exploration on the property has been through drilling campaigns using reverse circulation and diamond drill coring methods carried out by a third party under the supervision of the Alamo Dorado mine geology department. There are no known sample recovery, contamination, or bias issues that could have a material impact on the reliability of the sample results. The results of the drillhole samples are used for the estimation of mineral resources and mineral reserves.

Drilling

Approximately 120 reverse circulation and 160 diamond drillholes have been drilled in or in the vicinity of the deposit, mainly on a 25 metre grid pattern over the currently defined mineral resources and mineral reserves. No diamond drilling took place at the mine in 2015, in anticipation of the closure of the mine. In the recent past, drillholes were drilled using diamond drilling methods with HQ diameter surface drill rigs.

The information obtained from the reverse circulation and diamond drilling programs was used for the estimation of mineral resources and mineral reserves.

Sampling, Analysis, and Data Verification

Samples from reverse circulation drillholes were collected at 1.52 metre intervals, and split to obtain a 3.5 to 5 kilogram sample. Drill core samples were usually selected at approximately 1.5 metre intervals. Drill core recovery was good, while recovery for reverse circulation drilling was approximately 70%. There are no known drilling, sampling, or recovery factors that have had a material impact on the results of the data used to estimate mineral resources and mineral reserves.

The drillholes were brought from the drill rig to the core shack and kept in a secure location. Once the drillhole was logged and sampled, the samples were collected by the commercial laboratory where they were maintained under the control of the laboratory. We have no reason to believe that the validity and integrity of the samples were compromised.

Drill core samples were prepared and analysed by ALS Chemex in Durango, Mexico, using fire assay with gravimetric finish methods for the analysis of gold and for silver. Trace silver content below the detection limit of the fire assay method was determined using aqua regia digest with inductively coupled plasma – atomic emission spectroscopy ("ICP-AES") finish. The Alamo Dorado mine geology department conducted a QAQC program including the insertion of standards and blanks to the laboratory and the results of the QAQC samples demonstrate acceptable accuracy and precision.

Mineral Processing and Metallurgical Testing

As part of normal plant operation procedures, metallurgical analysis and testing is undertaken as required. The majority of these analyses are to assess mill performance and metallurgical recovery. Metal recovery forecasts used in our mine plans are based on the historical performance of the plant operations and the tonnes and grade of material that is planned to be mined.

Mineral Resource and Mineral Reserve Estimates

Management estimates that mineral reserves for the Alamo Dorado mine, as at December 31, 2015, are as follows:

Alamo Dorado Mineral Reserves [1, 2,3]

Reserve Category	Tonnes (Mt)	Grams of Silver per tonne	Grams of Gold per tonne
Proven	1.6	55	0.23
Probable	0.0	-	-
TOTAL	1.6	55	0.23

Notes:

1 Estimated using a price of $15 per ounce of silver and $1,100 per ounce of gold.

2 Mineral reserve estimates for Alamo Dorado were prepared under the supervision of, or were reviewed by, Martin Dupuis, P.Geo., and Martin G. Wafforn, P.Eng., as Qualified Persons as that term is defined in NI 43-101.

3 All remaining mineral reserves are stockpiled material.

Management estimates that mineral resources at Alamo Dorado, as at December 31, 2015, are as follows:

Alamo Dorado Mineral Resources [1, 2]			
Resource Category	**Tonnes (Mt)**	**Grams of Silver per tonne**	**Grams of Gold per tonne**
Measured	1.2	50	0.23
Indicated	0.9	78	0.40
Inferred	0.0	39	0.54

Notes:

1 These mineral resources are in addition to mineral reserves. Mineral resources were constrained within a pit shell using a price of $25 per ounce of silver and $1,400 per ounce of gold.

2 Mineral resource estimates for Alamo Dorado were prepared under the supervision of, or were reviewed by, Martin Dupuis, P.Geo., and Martin G. Wafforn, P.Eng., as Qualified Persons as that term is defined in NI 43-101.

Mineral resources are estimated on an annual basis using the additional drillhole information acquired during the year, although no new drilling information was available in 2014 or 2015. Mineral resources were estimated using an indicator kriging method with industry standard mining software. Three dimensional interpretations of lithology and silica content were prepared based on the drillhole logging information and coded to the block model. Bulk density was applied to the block model by lithology based on bulk density measurements. The block model was then depleted for previous mining and classified for confidence categories depending upon the confidence in the sample data, the estimate, and the density of available drillhole samples.

Mineral reserves were estimated by preparing an optimized pit design in Whittle software based on measured and indicated blocks in the resource estimate. The mineral reserve was classified depending upon the resource classification and whether the blocks can be economically mined. At the end of 2015, mining in the open pit had been completed and the remaining mineral reserves are those that are contained in stockpiles. The tonnes and grades of those stockpiles were estimated from blast hole samples that were taken at the time that the material was mined.

Mineral reserve estimates are based on a number of assumptions that include metallurgical, taxation and economic parameters. Increasing costs or increasing taxation could have a negative impact on the estimation of mineral reserves. There are currently no known factors that may have a material negative impact on the estimate of mineral reserves or mineral resources at Alamo Dorado.

Mining Operations

Until 2015, Alamo Dorado operated as a conventional surface mine utilizing hydraulic shovels, front end loaders, and mechanical trucks to mine on 5 metre high benches. The mine stockpiled low grade and mineralized waste category material, processing high grade material first in order to maximize the return on investment. At the end of 2015, the open pit mining operations were completed and the mine now plans to process the lower grade stockpile material for as long as it is economically viable to do so.

Processing and Recovery Operations

Ore is treated by conventional crushing and semi-autogenous and ball mill grinding followed by thickening, agitated cyanide leaching, leach residue filtration, direct electrowinning to produce a cathode sludge, AVR (acidify, volatilize, and re-neutralize) cyanide recovery and recirculation, leach residue washing with AVR product solutions, dry stack tailings, and conventional silver and gold doré production from melting of the cathode sludge. The nominal design treatment rate is 4,000 tpd of ore. The mine's tailings treatment process recovers approximately 45% of the sodium cyanide used and also neutralizes mill tailings, thus reducing the mine's environmental impact and reclamation costs. During 2015, we processed 1.8 million tonnes of ore, producing 3.0 million ounces of silver and 20,300 ounces of gold with metallurgical recoveries of 82.9% of silver and 89.13% of gold.

Most production from Alamo Dorado is in the form of doré bars, which is refined at arm's length refineries prior to the sale of refined silver and gold to bullion banks and traders. We enter into multi-year refining contracts with refiners for the production from Alamo Dorado. The mine also produces a small amount of silver and gold in the form of a copper-lead rich precipitate from the AVR circuit. This material is typically sold to concentrate traders under annual contracts, which consider the presence of any deleterious elements.. We have not had any difficulty in securing contracts for the sale of Alamo Dorado doré and concentrates, however, there can be no certainty that we will always be able to do so or what terms will be available at the time. Please see "Risks Related to Our Business – Trading Activities and Credit Risk".

The revenue per type of concentrate and doré produced by the Alamo Dorado mine for the past three years were as follows:

2015	**Revenue[1, 2]**	**Quantity**
Silver and Gold in Doré	$68.2 million	2,882,882 ounces of silver 20,324 ounces of gold
AVR copper/silver Concentrates[3]	$1.0 million	600 tonnes
2014		
Silver and Gold in Doré	$90.5 million	3,590,000 ounces of silver 17,500 ounces of gold
AVR copper/silver Concentrates[3]	$0.0 million	320 tonnes
2013		
Silver and Gold in Doré	$158.7 million	5,520,000 ounces of silver 19,674 ounces of gold
AVR copper/silver Concentrates[3]	$1.4 million	790 tonnes

Notes:

1 Consists of sales to arm's length customers.

2 Calculated as gross revenue less treatment and refining charges.

3 AVR concentrates contain payable silver and gold.

Infrastructure, Permitting, and Compliance Activities

The mine workings, processing plant, tailings and waste disposal areas, effluent management and treatment facilities, roads, and power and water lines have already been constructed and are located within the boundaries of the mining leases and surface rights controlled by us. Power is purchased from the Mexican national power utility and supplied by a 115 kilovolt power transmission line from a hydroelectric station located 35 kilometres from the mine. Water is supplied from wells located 27 kilometres to the southwest and pumped through a pipeline to the mine.

To the best of our knowledge, all permits and licenses required to conduct our activities on the project have been obtained and are currently in good standing.

The original environmental permitting work for Alamo Dorado considered options developed for the 2002 feasibility study, and was provided by MCB in conjunction with Aguayo Consultoría Ambiental, MCB's environmental consultant and coordinator. An EIS and risk assessment study, as well as ancillary documents, were submitted by MCB to the Secretariat of Environment and Mineral Resources ("SEMARNAT") to identify potential major deficiencies and for appropriateness for permitting Alamo Dorado. SEMARNAT recommended a finding of no significant impact in the original impact statement/permitting document. Following completion of the updated feasibility study, the original EIS and risk assessment study documents were revised, resubmitted, and approved by SEMARNAT. Project construction commenced in 2005 based on the approved EIS and an improved modification of

the SEMARNAT Temporary Land Use Permit for the operation of a mill and disposal of non-toxic tailings in a dry stack tailings area.

MCB had an agreement with SEMARNAT for compensation activities for mitigation of the environmental impact of the Alamo Dorado project. MCB conducted its compensation activities on schedule during the term of the agreement (2005-2007) and within the framework of its agreement with SEMARNAT. Confirmation was received in August 2007 from SEMARNAT acknowledging the end of the third and final stage of the agreement.

The main environmental projects at Alamo Dorado focus on revegetation and mine closure studies.

Alamo Dorado has voluntarily participated in the PROFEPA "Clean Industry" Program which involves independent verification of compliance with all environmental permits and the implementation of good practice environmental management procedures and practices. PROFEPA awarded Alamo Dorado the "Clean Industry" distinction in 2013, and the certification was renewed in 2015.

A closure cost estimate for Alamo Dorado was prepared according to State of Nevada approved SRCE methodology in 2011 and is updated every year. We have estimated the present value of reclamation costs for the Alamo Dorado property at December 31, 2015 to be approximately $11.5 million. This estimate increased from 2014 mainly due to normal footprint growth and changes to the closure plan resulting from initial geochemical studies completed in 2015 which recommended partial backfilling of the open pit. See "Narrative Description of the Business – Environmental Protection" for further disclosure regarding forward looking statements related to reclamation costs.

Internal safety audits have been conducted most recently in 2012 and 2014 by Pan American's Director of Health and Safety and safety managers from other Pan American operations. During 2015, personnel employed at Alamo Dorado attended over 9,000 hours of safety related training. Alamo Dorado was awarded the "Casco de Plata" award in the open pit category for the best safety record in Mexico during 2008 and during 2010. In 2015, Alamo Dorado was runner up in the Casco de Plata for open pit mines with fewer than 500 employees. In 2013, Alamo Dorado was the recipient of the Chairman's Safety Award for safety performance during 2012. The mine has recorded only one LTI since the start of the project and as of the end of 2015 had accumulated more than 6.4 million hours worked without an LTI.

Capital and Operating Costs

Due to mining at the Alamo Dorado mine nearing completion in 2015, no expenses were capitalized during the year. Similarly, no capital expenditures have been planned for 2016 due to the fact that the Alamo Dorado mine is nearing the end of its life. Decommissioning obligations are expected to be incurred starting in 2016 and carrying on through 2018.

Exploration, Development, and Production

As the mine is at the end of its life, no exploration or development activities are planned. In 2016, we anticipate producing between 1.0 million and 1.2 million ounces of silver and between 7,000 and 8,000 ounces of gold.

(iii) Dolores

Project Description, Location, and Access

The Dolores open pit silver-gold mine is located in the Sierra Madre Occidental mountain range in the state of Chihuahua, in the municipality of Madera, approximately 250 kilometres west of the city of Chihuahua. The main road access to the property is by maintained dirt access road from Yepachi, Chihuahua. Access is also possible by light aircraft landing on a dirt strip located about eight kilometres from the mine.

In 2012, Pan American acquired all of the issued and outstanding shares of Minefinders by way of a plan of arrangement. Upon completion, Pan American owned 100% of Minefinders and its subsidiaries, including Minefinders' wholly owned Mexican subsidiary, CMD, which owns and operates the mine. The area of the concessions is 27,700 hectares. We pay an annual fee to maintain the concessions in good standing, and to our knowledge, we have met all of the necessary obligations to retain the project. To the best of our knowledge, all permits and licenses required to conduct our activities on the project have been obtained and are currently in good standing.

Much of the surface rights on the property are owned by Ejido Huizopa. We have surface rights agreements with Ejido Huizopa and with several individual members of the Ejido allowing us irrevocable access and the right to carry out exploration and mining activities for a term of 15 years with a right to extend for a further 15 years. These surface rights provide us with access to our mining operations, waste storage areas, heap leach pad areas, and other facilities.

All of the known mineralized zones, mineral resources and mineral reserves, mine workings, the processing plant, effluent management and treatment systems, and heap leach pad areas relating to Dolores are located within the boundaries of the concessions and surface rights.

A net smelter return royalty of 2% payable on all metal production, plus an additional net smelter return royalty of 1.25% on gold production, is payable to RG Mexico Inc., a subsidiary of Royal Gold Inc. These royalties are only on the portion of the deposit contained within one of the three concessions. To the best of our knowledge, the Dolores mine is not subject to any other royalties, overrides, back-in rights, payments or other agreements and encumbrances. The Company's Mexican operations are subject to governmental taxes, fees and duties, including the SMD and the EMD.

While there are no known significant factors or risks that we currently anticipate will affect access or title, or the right or ability to perform work on the property, including permitting and environmental liabilities, please refer to "Risks Related to Our Business" starting on page 76 for a general discussion of the risks relating to our operations.

History

Placer mining began in the region of the Dolores mine in the 1860s and was followed by lode mining in 1898. A 25 tonne per day stamp mill began treating the Dolores ore from between 1915 and early 1929 when it was destroyed by fire. Only sporadic production occurred from 1929 to 1931, and there are no records of any historical production after 1931. Incomplete mining records from between 1922 and 1931 indicate that on the order of 372,000 tonnes of ore containing over 116,000 ounces of gold and six million ounces of silver were mined from several underground mine operations, including Dolores.

The property remained inactive until 1993 when Minefinders began acquiring a land position in the district. Minefinders began a full exploration program in 1995 and drilling started in 1996, using both diamond and reverse circulation drilling methods. In July 1996, Minefinders granted Echo Bay Mines ("Echo Bay") an option in the property. Echo Bay completed drilling, sampling, environmental data collection, and metallurgical testing. Minefinders bought out the Echo Bay interest, including the technical information collected by Echo Bay, in 1997.

Following construction, Minefinders commenced mining in 2008. During the years 2008 and 2011, Minefinders produced 25.5 million tonnes and stacked 18.3 million tonnes on the leach pads, producing 210,660 ounces of gold and 6.2 million ounces of silver.

We acquired the Dolores mine at the end of March 2012 and began to operate the mine in April 2012.

Geological Setting, Mineralization, and Deposit Types

The Dolores mine is located in the Sierra Madre Occidental mountain range, which comprises a long northwest trending volcanic plateau. The region is dominated by rhyolitic ash flow tuffs of the Upper Volcanic

Series which unconformably overlies andesites and interlayered felsic ash flow tuff deposits of the slightly older Lower Volcanic Series. The deposition of the Lower Volcanic Series was accompanied by the emplacement of quartz diorite and granodiorite batholiths and small intrusive bodies. The majority of the epithermal and porphyry related precious metals deposits in the Sierra Madre are hosted in the Lower Volcanic Series. The oldest structural episode produced east striking, steeply dipping strike slip faults and later extensional forces resulted in the regional development of north-south to northwest-southeast striking sub-vertical normal faults. The structures hosting mineralization in the Dolores area are believed to have controlled emplacement of a series of north-northwest trending andesite to latite intrusions. Zones of permeability associated with these faults and intrusive contacts formed conduits for the ascending mineralizing hydrothermal fluids.

The Dolores project is underlain by the Lower and Upper Volcanic Series. At the mine site the Lower Volcanic Series consists of gently tilted lavas, flow breccias, and tuffaceous rocks conformably overlain by felsic latite volcaniclastic breccia. These units are overlain by the Upper Volcanic Series, which comprise a volcaniclastic assemblage of mostly felsic ignimbrites and tuffs.

Gold and silver mineralization at Dolores is present as low to medium sulphidation, epithermal gold-silver bearing veins, silica stock works, breccias, and replacements. The system is mostly structurally controlled within a north-northwest striking extensional fault system. Gold and silver mineralization identified on the surface at Dolores lies over an area 4,000 metres long and up to 1,000 metres wide. The extent of mineralization at depth and along strike has not been fully defined.

Relatively deep mineralization tends to be located in high grade veins typically five to ten metres wide, while at higher elevations these feeder veins change into wider, lower grade stock works, veinlets, and disseminations toward the less competent and more permeable overlying latite flows and tuffs of the Lower Volcanic Series. These wider areas are on the order of a few hundred metres. The main mineralization occurs as a series of parallel structures trending to the north-northwest and dipping steeply to the west.

Mineralization is generally associated with quartz and may be composed primarily of iron-oxides, silver sulphosalts, electrum, and native gold in the oxidized zone and with pyrite, silver sulphides, native silver, visible gold, galena, and sphalerite deeper in the sulphide zone.

Exploration

Minefinders carried out reconnaissance geological mapping, detailed mapping, and geophysical surveys including induced polarization surveys, resistivity surveys, and magnetic surveys. Minefinders also collected rock chip samples from the surface and underground, and followed up on promising targets with both reverse circulation and diamond drilling. Since we acquired the Dolores property, we have continued with a program of near mine surface geological mapping and diamond drilling. Sample assays from both Minefinders and our drilling programs are used for the estimation of mineral resources and mineral reserves.

Minefinders' staff geologists carried out surface mapping and sampling, and employed contractors to complete the geophysical and drilling programs. We currently employ Rock Drill of Aguascalientes, Mexico, to undertake surface diamond drilling.

The reliability of the data obtained in Minefinders' exploration program could be affected by certain factors. Since acquiring the project, we have undertaken measures to ensure the data used for the estimation of mineral resources and mineral reserves is reliable, and the reliability of the sample data has been considered when applying confidence categories to the mineral resource and reserve estimates.

Drilling

Drillholes on the project include both reverse circulation and diamond drilling methods. Since we acquired the project in 2012, diamond drilling has been performed using HQ sized diamond drill rigs on the surface. Approximately 1,300 drillholes have been completed at the project, mostly focussed on a pattern over the mineral

resources and mineral reserves, and roughly spaced 25 metres along strike. The results of both the reverse circulation and diamond drillhole samples have been used to estimate mineral resources and mineral reserves.

Sampling, Analysis, and Data Verification

Reverse circulation drillholes were drilled either wet or dry, depending on ground conditions, and a 10 to 13 kilogram sample was selected from the length of the drill rod, which was 1.52 metres. Diamond drillhole samples are marked according to geological features by the project geologist after logging. Most drill core samples have been taken at 2 metre intervals.

All samples are transported from the drill rig to the core logging shed by company employees and the shed is locked when no geological staff is present. Samples are collected from the mine by the commercial laboratory where they are maintained under the control of the laboratory. We have no reason to believe that the integrity of the samples has been compromised.

Minefinders sent samples to either Bondar Clegg, ALS Chemex, or Inspectorate laboratories for preparation and analysis. Silver assays were mostly prepared using a multi-acid digestion technique and atomic absorption spectrometry. Any sample with an assay greater than 100 or 200 grams per tonne silver was re-assayed using fire assay with gravimetric finish. Gold was analyzed using fire assay with atomic absorption finish and with gravimetric finish if the assay was greater than one or two grams per tonne, depending on which laboratory was used. Since acquiring the project, we have sent samples to SGS Laboratories in Durango, Mexico. Samples are assayed for gold using fire assay with atomic absorption spectrometry finish, and by fire assay with gravimetric finish for samples greater than 10 grams per tonne of gold. Silver is analysed by three acid digestion with ICP-AES finish for trace silver values, by three acid digest with atomic absorption spectrometry finish for samples less than 300 grams per tonne silver, and by fire assay with gravimetric finish for samples containing greater than 300 grams per tonne silver.

Since acquiring the Dolores mine, we have implemented an industry standard QAQC program including the submission of certified standards, blanks, and duplicate samples to the laboratory and review the results regularly to ensure the appropriate action is taken in the event of a QAQC failure.

Mineral Processing and Metallurgical Testing

As part of normal plant operation procedures, metallurgical analysis and testing is undertaken as required. The majority of these analyses are to assess mill performance and metallurgical recovery. Metal recovery forecasts used in our mine plans are based on the historical performance of the plant operations and the tonnes and grade of material that is planned to be mined.

Mineral Resource and Mineral Reserve Estimates

Management estimates that mineral reserves for the Dolores mine, as at December 31, 2015, are as follows:

Dolores Mineral Reserves [1, 2]			
Reserve Category	**Tonnes (Mt)**	**Grams of Silver per tonne**	**Grams of Gold per tonne**
Proven	23.0	28	0.96
Probable	29.2	34	0.92
TOTAL	52.2	32	0.94

Notes:

1 Estimated using a price of $17.00 per ounce of silver and $1,180 per ounce of gold.

2 Mineral reserve estimates for Dolores were prepared under the supervision of, or were reviewed by, Martin Dupuis, P.Geo., and Martin G. Wafforn, P.Eng., as Qualified Persons as that term is defined in NI 43-101.

Management estimates that mineral resources at Dolores, as at December 31, 2015, are as follows:

Dolores Mineral Resources [1, 2]			
Resource Category	**Tonnes (Mt)**	**Grams of Silver per tonne**	**Grams of Gold per tonne**
Measured	11.8	17	0.29
Indicated	20.2	25	0.62
Inferred	4.1	30	1.17

Notes:

1 These mineral resources are in addition to mineral reserves. Estimated mineral resources are constrained within an optimized open pit shell and mineable underground shapes using metal prices of $25 per ounce of silver and $1,400 per ounce gold.

2 Mineral resource estimates for Dolores were prepared under the supervision of, or were reviewed by, Martin Dupuis, P.Geo., and Martin G. Wafforn, P.Eng., as Qualified Persons as that term is defined in NI 43-101.

Mineral resource estimates were prepared using multiple indicator kriging within three dimensional geological interpretations using industry standard mining software. Silver and gold grades were estimated using multiple indicator or ordinary kriging into the parent cell. Bulk density was applied to the block model using a nearest neighbour estimate of bulk density measurements of drill core samples. The block model was classified for measured, indicated, and inferred confidence categories depending on the location of the block relative to the number of drillhole intersections available to estimate each block, as well as other factors affecting confidence in the estimate.

The mineral resource estimate was then depleted for previous surface and underground mining. Planned dilution was applied to the block model and a value per tonne was estimated and applied to each block based on estimated gold and silver grades, estimated metallurgical recoveries, metal prices, and mining and processing costs. An optimized pit shell and design were prepared using the re-blocked resources block model to report proven and probable reserves. A second pit shell was prepared with the value per tonne calculations for each block re-estimated with resource metal prices to report mineral resources. Below the resource pit, mineral resources that may potentially be mined by underground mining methods were also defined.

Mineral reserve estimates are based on a number of assumptions that include metallurgical, taxation and economic parameters. Increasing costs, lower metal prices or increasing taxation could have a negative impact on the estimated mineral reserves. There are currently no known factors which may have a material negative impact on the estimated mineral reserves or mineral resources at Dolores.

Mining Operations

Mining at Dolores is by standard open pit methods using shovels, loaders, and haul trucks. Each bench is 7.5 metres high. Angled reverse circulation drill holes perpendicular to the strike of mineralization are used for grade control to provide high quality data for interpreting the ore/waste contacts in advance of mining. Low to medium grade material may be placed on stockpiles allowing for the preferential crushing and stacking of higher grade material.

In May, 2015 the Board of Directors approved an expansion project that, when completed, will include the construction of a pulp agglomeration treatment plant and an underground mine. Underground mining is expected to occur concurrently with open pit mining, and will be developed to commence production using open stoping mining methods at approximately the same time as the pulp agglomeration plant installation is completed. A preliminary underground schedule based on the underground mine plan targets a production rate of approximately 1,500 tpd to feed the pulp agglomeration circuit in tandem with the high grade portion of the material from the open pit mine. The planned schedule indicates underground development commencing in 2015 with full production achieved in 2018 and a mine life of approximately 12 years, including construction time. The projected mine life of the expanded operation may increase if additional mineral resources are defined and can be converted to mineral reserves.

Processing and Recovery Operations

The mine uses conventional cyanide heap leaching technology to produce gold and silver doré. Broken ore is trucked from the open pit to the crushing plant, where it is crushed, conveyed to the leach pads, and placed on the pads using conveyors and a radial stacking system. A distribution piping and nozzle system is used to irrigate the heaps with cyanide solution. The leaching period can cover years, and continues as subsequent lifts are placed on the pads. The pregnant solution is collected in a pond, clarified, and processed through a Merrill-Crowe circuit to precipitate gold and silver from solution onto zinc dust. The solution is pumped to filter presses, where the resulting material containing zinc, gold, and silver is dried. The dried material is then melted in a furnace to form doré bars.

The expansion project involves increasing the overall processing rate from 16,200 to 20,000 tpd by processing the high grade portion of the mined material through a pulp agglomeration treatment plant and conveying the agglomerated material with the crushed lower grade portion of the mined material to the heap leach pads for leaching. The pulp agglomeration plant will be comprised of crushing, grinding, particle size classification, thickening, filtration, agglomeration, and reagent facilities. The pulp agglomeration process of liberating metals by grinding has the advantage of improved leaching kinetics and ultimate recovery of precious metals in the high grade ore relative to the current heap leach method. The improvement in recovery of the high grade fraction due to pulp agglomeration is estimated at around 19% for silver and 13% for gold. This results in an overall improvement in metal recovery of around 7% for both silver and gold for the entire mineral inventory.

The Company anticipates meeting a scheduled start-up of the pulp agglomeration plant by mid-2017, while ramping-up underground operations to the full 1,500 tpd design capacity by the end of 2017. Apart from the expansion project, the projects team has also initiated the next phase of the leach pad sustaining capital expansion at Dolores, which is scheduled for completion by mid-year 2016, and will provide an additional 18 million tonnes of ore stacking capacity.

We stacked 6.1 million tonnes on the leach pads and produced 4.3 million ounces of silver and approximately 79,100 ounces of gold in 2015.

All production from Dolores is in the form of doré bars, which is refined at arm's length refineries prior to the sale of refined silver and gold to bullion banks and traders. Pan American currently has a multi-year refining contract in place with a refiner in the USA. We have not had any difficulty in securing contracts for the sale of Dolores doré, however, there can be no certainty that we will always be able to do so or what terms will be available at the time. Please see "Risks Related to Our Business – Trading Activities and Credit Risk".

Pan American's revenue from the doré produced by the Dolores mine was as follows:

2015	**Revenue[1,2]**	**Quantity**
Silver and Gold in Doré	$166.1 million	4,448,000 ounces of silver 82,510 ounces of gold
2014		
Silver and Gold in Doré	$156.6 million	3,911,600 ounces of silver 64,301 ounces of gold
2013		
Silver and Gold in Doré	$164.0 million	3,360,730 ounces of silver 61,559 ounces of gold

Notes:

1 Consists of sales to arm's length customers.

2 Calculated as gross revenue less treatment and refining charges.

Infrastructure, Permitting, and Compliance Activities

The mine workings, processing plant, leach pads, waste disposal areas, effluent management and treatment facilities, roads, and power and water lines have already been constructed and are located within the boundaries of the mining leases and surface rights controlled by us. Water for the operations is sourced from wells, historic underground workings, pit dewatering activities, and from the nearby Rio Tutuaca. Additional water rights have been acquired for the mine, and a dam and reservoir provide storm-water control and a primary water supply. To the best of our knowledge, all permits and licenses required to conduct our activities on the project have been obtained and are currently in good standing.

The expansion project considers cost savings in replacing onsite power generation with the installation of a high voltage power line to connect the Dolores operation with the main electrical grid in Chihuahua. The Company successfully completed the right of way agreements for the new 115 kV high voltage power line in the first quarter of 2015, and an agreement for the construction of the new line was negotiated with a Chihuahua based company. The installation of the new 115 kV high voltage line advanced to a level of approximately 74% completion by year end, and remains on budget and on schedule for an anticipated commissioning by mid-year 2016.

Permit applications for construction and operation of Dolores, including an EIS, a Technical Justification Study for Change of Land-Use, and a Risk Study were approved by SEMARNAT in April 2006. An additional modification to the mine permit was made to allow the construction of an underground exploration ramp in 2012.

Prior to our acquisition of the project, problems related to the stability of heap leach Pad 1 developed in 2010 and significant leakage was detected through the pad liner that was unable to be contained by the leak collection system. This issue resulted in cessation of stacking and irrigation on the pad and the relocation of approximately 2 million tonnes of ore to a newly constructed heap leach Pad 2. Soil and water sampling below Pad 1 in 2012 confirmed that no residual cyanide was present, however full remediation of the liner system will be required if Pad 1 were ever to be used for production again. At the request of PROFEPA, we submitted an approximate schedule for the relocation of residual ore from Pad 1 commencing in 2017, depending on economic and technical factors.

The first phase of heap leach Pad 3 was completed and commissioned in the fourth quarter of 2013 with a subsequent second phase completed by the end of 2014, giving a total capacity constructed at Pad 3 to-date of approximately 17.5 million tonnes. It is expected that the third phase of Pad 3 construction commenced in Q4 2015 and is ongoing. There is future potential to join Pad 3 to a reconstructed Pad 1 in a configuration that would significantly improve the stability and overall capacity of the original Pad 1. As well as receiving some Pad 1 residual ore, Pad 2 is being utilized for continued trickle-down leaching using a staged leach application circuit in combination with leachate solution application to Pad 3 which is expected to continue for several years depending on economic output.

Dolores has voluntarily participated in the PROFEPA “Clean Industry” Program which involves independent verification of compliance with all environmental permits and the implementation of good practice environmental management procedures and practices. The mine obtained its first certification in 2010 and was re-certified again on June 8, 2012. The mine is resolving some administrative matters with PROFEPA before completing the recertification process.

An Environmental Impact Statement (MIA) was submitted to SEMARNAT on December 1, 2015, for the Dolores pulp agglomeration Expansion project. This permit application is currently being assessed and construction permits are expected in early Q2 2016.

A closure cost estimate for Dolores was prepared according to State of Nevada approved SRCE methodology in 2012 and is updated every year. We have estimated the present value of reclamation costs for the Dolores property at December 31, 2015 to be approximately $11.1 million. See “Narrative Description of the Business – Environmental Protection” for further disclosure regarding forward looking statements related to reclamation costs.

Internal safety audits are conducted annually at Dolores by the Company's Director of Safety and Training assisted by safety and operations professionals from other operations. During 2015, personnel employed at Dolores attended over 137,000 hours of safety related training. Dolores was the recipient of the Chairman's Safety Award for safety performance during 2013. In 2015, Dolores was the recipient of the prestigious "Casco de Plata" award for the best 2014 safety record for open pit mines in Mexico with in excess of 500 employees.

Capital and Operating Costs

In 2015, total capital expenditures at Dolores were approximately $53.1 million, primarily for capitalized stripping to develop access to ore that is to be mined in future periods, advancement with construction of a power line, advances on the pulp agglomeration expansion and associated projects, near-mine exploration drilling, access roads and camp upgrades, and mining equipment replacements. $28.0 million of this expenditure was invested in projects deemed of expansionary nature, such as the construction of the new power line, and the pulp agglomeration project.

Sustaining capital expenditures at Dolores during 2016 are expected to be between $39.0 million and $42.0 million, including approximately $12.5 million of sustaining capital required for a leach pad extension. The other major components of 2016 anticipated sustaining capital investment at Dolores include approximately $17.0 million for open pit mine pre-stripping, approximately $9.0 million in mining and drilling equipment rehabilitations, and approximately $1.5 million in various plant equipment rehabilitations and replacements. In addition, capital expenditures relating to the expansion project are expected to require $71.0 million to $73.5 million in 2016.

The Dolores expansion project is anticipated to require total incremental capital of approximately $112.4 million and sustaining capital over the life of the mine of approximately $173.9 million. At metal prices of $16 per ounces of silver and $1,100 per ounce of gold, the incremental after tax net present value is estimated at $38.8 million at a 10% discount rate, with an internal rate of return of 19.9%, and a payback period of 3.1 years. At metal prices of $19 per ounce of silver and $1,200 per ounce of gold, the incremental after tax net present value is estimated at $65.6 million at a 10% discount rate, with an internal rate of return of 27.4% and a payback period of 1.7 years.

The Dolores Report, on which the foregoing is based, is a preliminary economic assessment. The results of this preliminary economic assessment are preliminary in nature, in that it includes inferred mineral resources that are considered too geologically speculative to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the assessment will be realized. Mineral resources that are not mineral reserves have no demonstrated economic viability.

Exploration, Development, and Production

In 2016, we anticipate producing between 3.4 and 3.6 million ounces of silver and between 97,000 and 102,000 ounces of gold. We anticipate advancing underground mine developments to intersect the main ore body, installing the first ventilation raise, commencing lateral developments, and performing initial stope definition drilling. During the first half of the year, we expect to complete the engineering work, establish the procurement of all major equipment and begin ground-breaking excavations for the new pulp agglomeration plant. It is expected substantial advancements on the construction of the pulp agglomeration plant will be made during the second half of 2016, targeting the commissioning of the pulp agglomeration plant in mid-2017 while ramping-up underground operations to the full 1,500 tpd design capacity by the end of 2017. In addition to the expansion project, the Company expects to complete and energize a new 115 kV powerline by mid-year 2016. We plan to undertake 11,800 m of exploration drilling in 2016.

B. Peru

(i) Huaron Mine

Project Description, Location, and Access

Huaron is an underground silver mine located 320 kilometres northeast of Lima in the province of Pasco in the Central Highlands of Peru. The nearest town is Cerro de Pasco, a major mining center, and is connected to Lima by road and rail. Access to the mine is by a paved highway. There is also a light aircraft strip at the town of Vicco, which is located approximately 30 minutes flying time from Lima, at which point an additional 30 minutes of driving is required to reach Huaron.

Huaron is 100% owned and operated by PAS Huaron, a Peruvian entity which is approximately 99.94% held, directly or indirectly, by Pan American. The area of the PAS Huaron concessions spans approximately 29,344 hectares. The concessions owned by us give us exclusive right to explore, develop, exploit, and market all of the products. Mining concession titles have been granted by and are registered with the Institute of Geology, Mining, and Metallurgy of Peru, and we pay an annual fee to keep the licenses in good standing.

The known mineralized zones, mineral resources, mineral reserves, mine workings, the processing plant, existing tailing impoundments, effluent management and treatment systems, and waste rock storage facilities are located within our concessions.

To the best of our knowledge, Huaron is not subject to any overrides, back-in rights, payments, or other agreements and encumbrances. The Company's Peruvian operations are subject to governmental taxes, fees and duties, including a mining royalty tax and a special mining tax ("SMT"). The royalty is applied on a company's operating income and is based on a sliding scale with marginal rates ranging from 1% to 12% with a minimum royalty rate of 1% of sales regardless of its profitability.

While there are no known significant factors or risks that we currently anticipate will affect access or title, or the right or ability to perform work on the property, including permitting and environmental liabilities, please refer to "Risks Related to Our Business" starting on page 76 for a general discussion of the risks relating to our operations.

History

The underground mine, mill, and supporting villages were originally built in 1912 by a subsidiary of the French Penarroya Company. In 1987, the mine was sold to Mauricio Hochschild and Cia Ltda ("Hochschild"). In April, 1998, a portion of the bed of the nearby Lake Naticocha collapsed and flooded the neighbouring Animon underground mine. Through interconnected tunnels, the lake water entered and flooded the Huaron mine, causing its closure.

After the April 1998 flooding, the Huaron mine operations were shut down, the labour force was terminated, the camp closed, and work was undertaken to clean up the flood damage, drain the workings, and prepare for an eventual mine re-opening. The water level in the lake, which provided the source of floodwater, is currently maintained well below the level where it flooded into the old workings and we do not expect further flooding. In September 2000, the operators of the Animon mine, in accordance with a settlement agreement reached with Cía. Minera Huaron S.A., constructed a channel to route water around the lake to provide water for the Huaron mine operation and to reduce the water in upstream lakes to prevent agricultural flooding, which had created local social pressures.

We acquired a majority interest in the Huaron mine from Hochschild in 2000 and began full-scale operations in 2001. We subsequently acquired the remaining interest in the mine and, following a demerger from

Pan American Silver Mina Quiruvilca S.A. in connection with the sale of the Quiruvilca mine in 2013, Pan American now holds, directly or indirectly, approximately 99.94% of PAS Huaron.

Prior to our acquisition of the mine, approximately 22 million tonnes of silver-rich base metal sulphide ore were produced at the property. Ore from the mine was processed on site by crushing, grinding, and flotation to produce copper, lead, and zinc concentrates, as it is today.

Geological Setting, Mineralization, and Deposit Types

The Huaron property is located within the Western Cordillera of the Andes Mountains and the regional geology is dominated by Machay Group limestones and Pocobamba continental sedimentary rocks. These groups have been deformed by the Huaron anticline, the dominant structural feature of the area. The limestones and sedimentary rocks are strongly folded and intruded by quartz monzonites and quartz monzonite dikes and associated fracturing. Following the intrusion of the dikes, the sedimentary rocks were further compressed and fractured, and the fractures were subsequently mineralized by hydrothermal fluids.

The main lithology in the area of Huaron is a sequence of continental redbeds which unconformably overlie massive marine limestones. North-south trending sub-vertical porphyritic quartz monzonite dykes cross cut the mine stratigraphy. Thinly bedded marls and sandstones known as the lower redbeds are present in the central part of the mine and at lower elevations. The upper redbeds are present on the eastern side of the mine, and are comprised of calcareous chert overlying sandstone and marls, in turn overlying the Barnabe quartzite conglomerate at the base of the sequence. On the western side of the mine, the stratigraphy consists of a series of interbedded conglomerates and sandstones.

Huaron is located within an anticline with an axis striking approximately north-south and plunging gently to the north. There are two main fault systems. One system comprises north-south striking thrust faults, parallel to the axis of the anticline, and the other comprises east-west striking tensional faults.

Huaron is a hydrothermal polymetallic deposit of silver, lead, zinc, and copper mineralization hosted within structures likely related to the intrusion of monzonite dikes, principally located within the Huaron anticline. Mineralization is encountered in veins parallel to the main fault systems, in replacement bodies known as “mantos” associated with the calcareous sections of the conglomerates and other favourable stratigraphic horizons, and as dissemination in the monzonitic intrusions at vein intersections.

The mineralized veins vary from a few centimetres to up to 10 metres wide, and may extend along strike for up to 1,800 metres. Most of the structures show open mineralization at depth and along strike and have excellent exploration potential. Vein orientations vary but generally trend east-west or north-south. The current mineral reserves are based on approximately 100 different structures which have been grouped into 13 families of mineralized trends according to location and orientation.

The most important economic minerals are tennantite-tetrahedrite (containing most of the silver), sphalerite, and galena, but more than 90 other minerals have been identified. 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 pyrargyrite, proustite, polybasite, and pearceite.

Exploration

Since Huaron is an active mining operation, current exploration is conducted using a combination of underground diamond drilling and channel sampling from drifts excavated along the mineralized zones. Vein intersections and sample grade information from both the channel samples and the diamond drillholes are used to estimate mineral resources and mineral reserves. Underground diamond drilling is undertaken by an external drilling contractor supervised by us. There are no known sample recovery, contamination, or bias issues that could have a material impact on the reliability of the sample results.

Drilling

There is extensive diamond drillhole coverage within reach of the underground workings. All underground holes are drilled by an external drilling contractor under our supervision using BQ, NQ, and HQ diameter industry standard underground diamond drill rigs.

Diamond drilling at Huaron generally provides reliable data for the estimation of mineral resources and mineral reserves, provided appropriate measures are taken to minimize sample material loss, to prevent sample contamination, and to ensure an unbiased, representative sample is taken. Ground conditions for diamond drilling at Huaron are generally good, resulting in high drill core recovery, and measures are taken to minimize potential contamination. There are no known drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results.

Sampling, Analysis, and Data Verification

Diamond drillhole samples are split in half with a diamond bladed saw after the core has been logged and the sample intervals have been marked by the geologist. Channel samples weighing between 4 kilograms and 6 kilograms are collected with a hammer and chisel every 4 metres across the vein in stoping areas, every 2 metres across the vein in sublevels and drifts, and every 1 metre in vertical developments. Samples from both channel samples and diamond drillholes vary between 0.1 metres and 1.5 metres in length.

No out of the ordinary security measures are taken with the samples, but as the samples are prepared and analysed within the confines of the general mine security enclosures, there is no reason to believe that the validity and integrity of the samples have been compromised.

Both the channel and the underground diamond drillhole samples are sent to the on-site laboratory at Huaron, which is not certified by any standards association but is managed and operated by the international commercial laboratory firm, SGS. Assays are performed using acid digestion and atomic absorption spectroscopy, and analysed for silver, zinc, lead, and copper content.

The laboratory conducts a routine internal quality assurance/quality control (“QAQC”) program. For each batch of 20 samples at least one duplicate sample and one certified standard is submitted by the laboratory. A QAQC program supervised by the geology department is also implemented which includes the submission of one certified standard and one blank on a daily basis to the onsite laboratory. Duplicate samples are also submitted, both to the onsite laboratory and to a second laboratory to act as a check on the onsite laboratory.

Mineral Processing and Metallurgical Testing

As part of normal plant operation procedures, metallurgical analysis and testing is undertaken as required. The majority of these analyses are to assess mill performance and metallurgical recovery. Metal recovery forecasts used in our mine plans are based on the historical performance of the plant operations and the tonnes and grade of material that is planned to be mined.

Mineral Resource and Mineral Reserve Estimates

Management estimates that mineral reserves at the Huaron mine, as at December 31, 2015, are as follows:

Huaron Mineral Reserves [1, 2, 3]					
Reserve Category	Tonnes (Mt)	Grams of Silver per tonne	% Zinc	% Lead	% Copper
Proven	6.1	172	2.99	1.40	0.41
Probable	3.7	167	3.17	1.58	0.27
TOTAL	9.8	170	3.06	1.47	0.36

Notes:

1 Estimated using a price of $17.00 per ounce of silver, $1,800 per tonne of zinc, $1,800 per tonne of lead and $5,000 per tonne of copper.

2 Mineral reserve estimates for Huaron were prepared under the supervision of, or were reviewed by, Martin Dupuis, P.Geo., and Martin G. Wafforn, P.Eng., as Qualified Persons as that term is defined in NI 43-101.

3 Numbers may not add due to rounding.

Management estimates that mineral resources at the Huaron mine, as of December 31, 2015, are as follows:

Huaron Mineral Resources [1, 2]					
Resource Category	Tonnes (Mt)	Grams of Silver per tonne	% Zinc	% Lead	% Copper
Measured	1.7	166	2.93	1.66	0.27
Indicated	1.4	167	2.95	1.58	0.67
Inferred	7.3	153	2.75	1.48	0.32

Notes:

1 These mineral resources are in addition to mineral reserves. Estimated using a price of $17.00 per ounce of silver, $1,800 per tonne of zinc, $1,800 per tonne of lead and $5,000 per tonne of copper.

2 Mineral resource estimates for Huaron were prepared under the supervision of, or were reviewed by, Martin Dupuis, P.Geo., and Martin G. Wafforn, P.Eng., as Qualified Persons as that term is defined in NI 43-101.

Mineral resource estimates are prepared on an annual basis and updated with the additional diamond drilling and channel samples collected during the year, using a variation of the polygonal method in AutoCAD and Excel software. Each vein structure is projected onto a longitudinal section and divided into a series of geometrical blocks. The average true width of the vein intersections is applied to the block area to determine the volume. Sample grades are reviewed and treated for extreme values if necessary, and then the average grade of the intersections within each block is assigned to the block. Bulk density values are applied to the volume of the block to estimate the tonnes of each block, based on the average of bulk density measurements.

The blocks are then depleted for previous mining. Planned mining dilution is applied to each block considering the width, dip angle, mining method, and expected ground conditions of each vein and an allowance is made for expected mining losses. A value per tonne is applied to each block based on metal content, metal prices, concentrate sales terms, concentrate quality, processing recovery, transportation, refining, and other selling costs such as storage fees, port fees, etc. Metallurgical recoveries are determined separately for each group of veins or structures to account for variability in the recovery. Any blocks that do not meet the criteria of resources are removed. Each block is classified for measured, indicated, and inferred confidence categories depending on the location of the block relative to mine workings, the type of sample available in each block, and the number of samples available to estimate each block.

Mineral reserve estimates are based on a number of assumptions that include metallurgical, taxation and economic parameters. Increasing costs or increasing taxation could have a negative impact on the estimation of

mineral reserves. There are currently no known factors that may have a material negative impact on the estimate of mineral reserves or mineral resources.

Mining Operations

Mining is undertaken using a combination of conventional cut and fill, mechanized cut and fill, and mechanized sub-level long hole stoping methods, using unconsolidated development waste and mill tailings for back fill. Mechanized sub-level long hole stoping is the primary mining method at the mine. A combination of haul trucks and electric locomotives are in place for haulage from the upper parts of the mine. A shaft with a hoist is used for hoisting ore and occasionally waste to the surface. Ore sourced from below the 500 level is hauled to the surface crusher using a combination of diesel haul trucks and hoisting in the mine shaft.

Processing and Recovery Operations

Huaron operates an 870,000 tonne per year nominal capacity mill using froth induced flotation technology to produce silver in copper, lead, and zinc concentrates. The mill flowsheet consists of three-stage crushing, ball mill grinding, and selective flotation of the ore to concentrates, followed by thickening and filtering of the concentrates. Tailings from the processing plant are either returned underground hydraulically to act as backfill material in the cut and fill mining areas or delivered to a tailing impoundment area via a pipeline.

In 2015, the mill processed approximately 895,000 tonnes of ore with metallurgical recoveries averaging 83.2% for silver, 63.8% for zinc, 73.1% for lead, and 78.5% for copper. Metal production during the year was approximately 3.7 million ounces of silver, 13,500 tonnes of zinc, 6,900 tonnes of lead, and 6,700 tonnes of copper.

The silver rich zinc, lead, and copper concentrates from Huaron are sold under contracts with arm's length smelters and concentrate traders, which consider the presence of any deleterious elements. Huaron receives payment for an agreed percentage of the silver, zinc, lead, or copper contained in the concentrates it sells after deduction of smelting and refining costs, based on average spot prices over defined 30-day periods that may differ from the month in which the concentrate was produced. Under these circumstances, we may, from time to time, fix the price for a portion of the payable metal content during the month that the concentrates are produced. To date, we have been able to secure contracts for the sale of all Huaron concentrates produced, however, there can be no certainty that we will always be able to do so or what terms will be available at the time. Please see "Risks Related to Our Business – Trading Activities and Credit Risk".

The revenue per type of concentrate produced by the Huaron mine for the past three years were as follows:

2015	**Revenue[1, 2]**	**Quantity (Tonnes of Concentrate)**
Zinc Concentrate[3]	$15.7 million	28,899
Lead Concentrate[3]	$19.5 million	13,707
Copper Concentrate[3]	$40.5 million	25,949
2014		
Zinc Concentrate[3]	$21.3 million	30,058
Lead Concentrate[3]	$19.3 million	12,095
Copper Concentrate[3]	$54.3 million	22,497

2013		
Zinc Concentrate[3]	$20.5 million	28,788
Lead Concentrate[3]	$22.1 million	11,905
Copper Concentrate[3]	$50.2 million	13,822

Notes:

1 Consists of sales to arm's length customers.

2 Calculated as gross revenue less treatment and refining charges.

3 Zinc and lead concentrates contain payable silver. Copper concentrates contain payable silver and gold.

Infrastructure, Permitting, and Compliance Activities

The mine workings, processing plant, tailings and waste disposal areas, effluent management and treatment facilities, roads, and power and water lines have already been constructed and are located within the boundaries of the mining leases and surface rights controlled by us. To the best of our knowledge, all permits and licenses required to conduct our activities on the project have been obtained and are currently in good standing. We are authorized to source the water necessary for our operations from a system of nearby lakes. The primary source of power for the mine is the Peruvian national power grid and is sufficient for the mine's current requirements.

In October 2003, the Peruvian government passed legislation requiring active mining operations to file closure plans. In October 2005, administrative rules associated with this legislation were promulgated which laid out detailed closure requirements and required that detailed closure plans and cost estimates be filed by October 2006.

The original closure plan for Huaron was filed by mid-year 2004, and in August of 2006, we submitted a comprehensive closure plan for Huaron to the Ministry of Energy and Mines ("MEM") in accordance with that ministry's regulations and the updated rules. The closure plan was prepared by third party consultants registered with the Peruvian authorities as qualified to present closure plans to the MEM. The closure plan includes a summary of the proposed closure scheme for each of the major areas of impact such as mine water, tailings areas, waste rock dumps, plant site infrastructure, and underground mine. A detailed cost estimate was prepared based on our and the consultant's shared experience with closure works and experience with other projects in Peru. As required by the MEM, the costs were summarized in three phases: concurrent closure, final closure, and post closure. Updated closure plans are filed as required, with the most recent closure plan modification approved on October 24, 2012.

The most significant environmental issue currently associated with the mine is relatively high metal concentrations in the waters discharged from the mine and localized areas of acid rock drainage from the mine's tailings deposit areas. All waters are captured and treated in a treatment plant to achieve compliance with discharge limits. The Peruvian government modified its receiving water quality limits in December 2015, bringing the limits in line with current international and North American standards and significantly reducing the potential cost impacts to our Peruvian operations. We are conducting a new baseline assessment at Huaron in order to evaluate the potential impact of the latest changes to water treatment practices. We have requested the return of the previously presented Adaptation Plan from the Ministry of Energy and Mines. Once returned, we will have 12 months to present a new Adaptation Plan if any upgrades are required to meet the new limits at Huaron. We commenced implementation of measures such as water treatment plant automation in 2015 which make it well placed to meet the new limits without material economic impacts to our operation.

An agreement signed in 2000 allows Volcan Compañia Minera S.A.'s ("Volcan") Chungar mine, which neighbours Huaron, to discharge water from its mine dewatering into the Huaron drainage tunnel. The agreement also requires Volcan to contribute to the costs of tunnel maintenance and water treatment and discharge, however provisions of the agreement which would enable water quality and flow measurement between the mines were not implemented and no payments have been made. In 2014, an independent consultant engaged

jointly by both companies concluded that the flow from Chungar to Huaron represents 19% of the total flow in the drainage tunnel and recommended the installation of a permanent monitoring system for ongoing verification. Measured flows from Chungar decreased significantly in 2015 and we continue to negotiate the details of the joint monitoring and future payments with Volcan. The scale of benefits, if any, to Pan American is still unclear.

A closure cost estimate for Huaron was prepared according to State of Nevada approved Standard Reclamation Cost Estimator methodology in 2011 and is updated every year. The current present value of closure expenditures at Huaron as at December 31, 2015 is estimated at $6.4 million. See "Narrative Description of the Business – Environmental Protection" for further disclosure regarding forward looking statements related to reclamation costs.

Internal safety audits are conducted annually by Pan American's Director of Health and Safety and safety managers from our other operations at Huaron. All Huaron 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. During 2015, personnel at Huaron attended over 227,000 hours of training.

Capital and Operating Costs

Since the mine is in operation, any sustaining capital expenditures are justified on an on-going basis. Capital expenditures at Huaron during 2015 totalled $13.6 million, primarily on tailings storage facility expansion, mine development, and exploration drilling.

We have forecasted sustaining capital expenditures of between $6.0 million and $7.5 million for 2016, including $0.8 million for completion of the tailings storage expansion, $1.4 million for near-mine diamond drilling, and $1.2 million for mining equipment refurbishments and replacements.

Exploration, Development, and Production

In 2016, Huaron is forecast to produce between approximately 3.65 and 3.80 million ounces of silver and between 700 and 800 ounces of gold. Base metal production is expected to be between 13,000 and 13,500 tonnes of zinc, between 6,700 and 6,900 tonnes of lead, and between 5,500 and 5,700 tonnes of copper. We plan to undertake 19,000 m of exploration drilling in 2016.

(ii) Morococha Mine

Project Description, Location, and Access

The Morococha mine is an underground silver mine located 137 kilometres east of Lima in the province of Yauli. The nearest city is La Oroya, approximately 38 kilometres to the east. Morococha is accessible via Peru's paved central highway and an all-weather gravel road. Rail service from Lima is also available via a national rail line that passes adjacent to the operations.

Morococha is owned and operated by Argentum, a Peruvian company in which Pan American, through our subsidiary Pan American Peru, has a 92.01% voting common share interest (the remaining interest is held by Alejandro Gubbins and Compañía Minera Casapalca S.A.). In addition, we have, directly or indirectly, the majority of the non-voting investment shares resulting in a total ownership interest of approximately 92.3% as at December 31, 2015 (excluding certain investment shares held by Argentum itself).

Morococha is comprised of three economic administrative units ("UEAs") and various concessions held outside of these UEAs, for a total of 541 mining concessions with an area of approximately 10,522hectares, as well as two processing concessions. The three UEAs contain 454 mining concessions and two processing concessions owned outright by Argentum and 11 concessions transferred to Argentum from Silver Lead Mining Company S. A. There are also 36 concessions under a lease agreement with Corporación Minera Sacracancha S.A.C., 31 concessions under option from Minera Chinalco Peru ("MCP"), and nine concessions held by agreement with different third parties. The majority of the mining concessions comprising Morococha are contiguous.

The known mineralized zones, mineral reserves and mineral resources, mine workings, processing plants, effluent management and treatment systems, and the mine's tailings and waste disposal areas are contained within the boundaries of these concessions. These mining concessions give us the exclusive right to explore, develop, and exploit, as well as the right to market all of the products. Mining concession titles for these properties have been granted by and are registered with the Public Registry of Peru, and we pay an annual fee to keep the licenses in good standing, and to our knowledge, we have met all of the necessary obligations to retain the project. To the best of our knowledge, all permits and licenses required to conduct our activities on the project have been obtained and are currently in good standing.

Argentum did not hold registered legal title of most of the surface lands that overlie the mining concessions which comprise Morococha when we acquired Morococha in 2004, including lands on which Morococha's process plants, shafts and access roads were located. These rights were all formerly owned by Centromin. Centromin granted Argentum 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 Toromocho disseminated copper system, which overlies certain of Argentum's mining concessions and underground mining operations. Argentum had an obligation to pay Centromin $60,000 (adjusted annually for inflation) quarterly commencing May 28, 2003 as consideration for this right. Argentum's and its predecessors' use of these surface lands have been exercised for decades with Centromin's knowledge and Argentum's claim to its continued use of these surface rights was based on concepts of rights acquired through long term use often referred to as adverse possession.

Peru Copper Inc. ("Peru Copper"), a copper mining company carrying on business in Peru, acquired mining concessions and surface rights to the Toromocho property from Centromin. In June 2007, Aluminum Corporation of China ("Chinalco") purchased 100% of the outstanding shares in Peru Copper and formed MCP.

In 2005, Argentum, with the opposition of Centromin, engaged in a number of administrative and judicial proceedings to obtain legal title to surface lands and underground access that comprise part of the rights that were acquired by Peru Copper from Centromin. Following Peru Copper's acquisition of Centromin's rights, we began preliminary discussions with Peru Copper, and later with Chinalco and MCP, in respect of negotiating a resolution to the surface rights issues between the parties.

In May 2008, MCP acquired certain surface rights from Centromin (currently, Activos Mineros S.A.) covering the main Morococha area that had been reserved for the Toromocho project by the Government of Peru. In addition, MCP acquired rights including surface lands in the Morococha area where the Morococha mine administration and operations are taking place, as well as certain underground areas. Certain of the underground areas acquired by MCP would also provide Pan American with easier and less costly underground access to some areas of the Morococha concessions.

In June 2010, we reached an agreement with MCP that defined each party's long term surface rights and therefore provides certainty to the land situation for the Morococha property. The primary focus of the agreement is on the lands and concessions around the Morococha mine and MCP's Toromocho copper project. Under the terms of the agreement, Argentum is required to relocate the core Morococha facilities, including the administration offices, warehouse, maintenance facilities, mine compressors, and some camp facilities and construct a new concentrator over a five year period and transfer certain mineral concessions and access rights to MCP that it needs in order to proceed with the development of Toromocho, including the surface lands within the planned open pit mining area of the Toromocho project. In exchange, Argentum is to receive a package of surface rights, easements, and other rights to relocate the facilities and to continue uninterrupted operations, and would also obtain rights to a number of mineral concessions outside the planned Toromocho pit area where high grade silver veins have been identified. Lastly, Argentum is to receive periodic cash payments from MCP totalling $40 million, which would offset a portion of the capital required for the facility relocation. Pursuant to the agreement, the transfer of lands and rights and the cash payments will occur over a period of time and are dependent on meeting certain milestones. In addition to the foregoing, the parties agreed to dismiss the judicial and administrative claims between them. To date, Minera Argentum has received a total of $24.0 million (pre-tax) from MCP and has completed a number of phases of the relocation effort. We have completed the abandonment and

demolition of all buildings in the Central Shaft area, the construction of the replacement facilities located north of the central highway, but have not yet relocated the plant. We continue to operate the plant, the location of which is projected to eventually interfere with the advance of the Toromocho open pit. Depending on economic justification, mineral reserve growth, and the advance of the Toromocho open pit, the plant will need to be replaced or relocated. Although no up-to-date engineering studies are available, the estimated cost of a new 800,000 tonne per annum processing plant could be significant. This cost might be partially offset by the remaining payments due from MCP in relation to the June 2010 agreement. Please see "Risks Related to Our Business – Title to Assets".

To the best of our knowledge, and other than as described above, Morococha is not subject to any overrides, back-in rights, payments, or other agreements or encumbrances. The Company's Peruvian operations are subject to governmental taxes, fees and duties, including the mining royalty tax and the SMT, as described under "Huaron – Project Description, Location and Access".

While there are no known significant factors or risks that we currently anticipate might affect access or title, or the right or ability to perform work on the property, including permitting and environmental liabilities, other than as described above, please refer to "Risks Related to Our Business" starting on page 76 for a general discussion of the risks relating to our operations.

History

Mining began in the region around Morococha before the 1500s, and production has been continuous in the district since the late 1800s. Most of the exploration undertaken by former owners of Morococha was limited to underground development along strike of known structures. The Morococha District has excellent exploration potential owing to the prevalence of carbonate units favourable for replacement mineralization as well as the significant vertical extents of known mineralization. As a result, drilling was not typically part of the exploration efforts. Prior to our acquisition of Morococha, little effort was given to the exploration and economic evaluation of areas that were not immediately adjacent to the existing mine workings. Previous operators utilized both surface and underground diamond drilling only to test for potential economic mineralization. Once the presence of economic mineralization was confirmed, the vein or manto was accessed underground for further exploration.

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

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 Sociedad Minera Corona S.A. ("SMC"). Cerro de Pasco continued to operate in other areas around 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.

On January 20, 2004, we entered into an agreement with 14 individuals, estates and companies, all of whom were arm's length to us and 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 anónima organized under Peruvian company law, for $35,425,390 in cash. Argentum acquired, through a corporate restructuring undertaken under Peruvian company law, the Anticona and Manuelita mining units and related infrastructure and processing assets from SMC. At the time of acquisition, Argentum held in its treasury as cash all profits earned by SMC's Anticona and Manuelita mining operations since November 1, 2003. The transaction was subject to regulatory approval and a number of conditions, including: (i) the completion of the corporate restructuring; (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) our successfully undertaking a public bid for not less than 92.014% of the voting shares of Argentum through the Lima Stock Exchange.

On February 24, 2004, we entered into a further agreement with the Morococha Vendors to purchase all of the issued and outstanding shares of Empresa Minera Natividad S.A. ("Natividad"), a corporation organized under Peruvian company law which holds mining concessions and operations that are complementary to the Anticona and Manuelita mining units, for $1.5 million in cash. Closing of the acquisitions of Argentum and Natividad occurred contemporaneously in August 2004, with effect as of July 1, 2004 and in 2005, Argentum amalgamated with Natividad. Argentum made all necessary applications for delisting its shares from the Lima Stock Exchange and the delisting process was completed in 2006. In addition, Pan American Peru continues to acquire the labour shares in Argentum when able to do so. The labour shares were created as a means through which workers would be able to take part in our success (but do not afford the holders of such shares influence over our decision-making, as they are non-voting), and are held either by current workers, former workers or by third parties who have bought labour shares in the free market.

Extensive mining has taken place at the property prior to Pan American's acquisition in 2004, but there are no known reliable historical production figures. For the 15 years between 1989 and 2003, approximately 7.9 million tonnes of ore was mined at a grade of 227 ppm Ag, 0.5% Cu, 1.7% Pb, and 4.6% Zn.

Geological Setting, Mineralization, and Deposit Types

Morococha is located on the eastern side of the Western Cordillera of the Andes Mountains. The host rocks for the mineralization in the Morococha district comprise schists, volcanic rocks, and predominantly carbonate sediments cut by a series of intrusions. The structures that account for the majority of the vein mineralization in the Morococha district trend predominantly northeast to east-northeast.

The structural setting of the area is dominated by shallowly northwest plunging folds, the most important of which is the anticlinal feature referred to as the Yauli Dome, which trends north-northwest and divides the district roughly in half. Compression apparently gave rise to early northwest trending shears, and the uplifting effect of the intrusion of quartz monzonite stocks produced an arching of the Yauli Dome and an associated phase of tension faulting generally trending perpendicular (northeast-southwest) to the axis of the anticline. This latter set is the most heavily mineralized set of fractures and accounts for the majority of fault hosted mineralization in the Morococha District.

Vein mineralization formed along the dominant system of northeast trending tensional faults. Mineralization associated with the veins is mostly fracture filling in nature. Replacement manto mineralization is generally restricted to receptive stratigraphic horizons where favourable lithologies are intersected by mineralized veins or are proximal to pre-mineral intrusives. Some of the replacement mineralization occurs as structurally controlled irregular chimneys within generally favourable stratigraphic horizons.

Mineralization at Morococha includes epi-mesothermal silver-zinc-lead-copper veins, bedded silver-base metal replacements or mantos, intrusive-sediment contact skarns, and the quartz porphyry-hosted Toromocho disseminated copper system. Shoots range up to 400 metres in length with some traced for over 800 metres down plunge. Economic widths in the veins range from 0.5 metres to more than 6.0 metres. Vein width averages in the district are on the order of 1.2 metres.

Replacement manto mineralization is generally restricted to receptive stratigraphic horizons where favourable lithologies, especially carbonates, are intersected by mineralized veins or are proximal to pre-mineral intrusive rocks. Mantos can have a significant strike extent where the veins are closely spaced, and can range from less than one metre to up to 12 metres in width.

Sphalerite, galena, and chalcopyrite are the most important primary minerals for zinc, lead, and copper while silver is generally present as freibergite (silver-tetrahedrite) or argentiferous galena.

Exploration

Since Morococha is an active mining operation, exploration is conducted using a combination of underground diamond drilling and channel sampling from drifts excavated along the mineralized zones. Channel samples weighing between 4.0 kilograms and 6.0 kilograms are collected by our employees from the backs of drifts, the ribs of crosscuts, the backs of stopes, and the ribs of raises. The channel samples are taken every two metres across the veins or mantos in exploration drifts and the stopes are sampled on two metre centres along strike. Sample intervals are usually between 0.2 metres and 2.0 metres wide. Vein intersections and sample grade information from both the channel samples and the diamond drillholes are used to estimate mineral resources and mineral reserves of the volumes anticipated to be mined. There are no known sample recovery, contamination, or bias issues that could have a material impact on the reliability of the sample results.

Drilling

Both surface and underground holes are drilled by external drilling contractors under Pan American supervision using BQ, NQ, and HQ diameter industry standard underground diamond drill rigs. The information obtained from the drilling programs was used for the estimation of mineral resources and mineral reserves. There are no known drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results.

Sampling, Analysis, and Data Verification

Diamond drill hole sample intervals within the veins vary in length between 0.10 and 1.5 metres while unmineralized intervals less than 6 metres wide between the veins are sampled at a maximum length of 1.5 metres. The channel samples weigh between 4 kilograms and 6 kilograms and are taken every two metres across the veins or mantos in exploration drifts and the stopes are sampled on two metre centres along strike. The rock mass is generally of good quality and there have been few issues regarding sample loss or contamination during sample collection and splitting. There are no known drilling, sampling, or recovery issues that could materially impact the reliability of the results.

No out of the ordinary security measures are taken with the samples, but as the samples are prepared and analysed within the confines of the general mine security enclosures, there is no reason to believe that the validity and integrity of the samples have been compromised.

Both the channel and underground diamond drillhole samples are prepared by the on-site laboratory at the mine, which is not certified by any standards association but is managed and operated by the international commercial laboratory firm, SGS. Assays are performed using acid digestion and atomic absorption spectroscopy, and analysed for silver, zinc, lead, and copper content.

Mineral Processing and Metallurgical Testing

As part of normal plant operation procedures, metallurgical analysis and testing is undertaken as required. The majority of these analyses are to assess mill performance and metallurgical recovery. Metal recovery forecasts used in our mine plans are based on the historical performance of the plant operations and the tonnes and grade of material that is planned to be mined.

Mineral Resource and Mineral Reserve Estimates

Management estimates that mineral reserves for the Morococha mine, as at December 31, 2015, are as follows:

Morococha Mineral Reserves [1, 2, 3]					
Reserve Category	**Tonnes (Mt)**	**Grams of Silver per tonne**	**% Zinc**	**% Lead**	**% Copper**
Proven	2.3	176	3.57	1.18	0.78
Probable	1.9	202	3.70	1.35	0.53
TOTAL	4.2	188	3.63	1.26	0.66

Notes:

1 Estimated using a price of $17.00 per ounce of silver, $1,800 per tonne of zinc, $1,800 per tonne of lead and $5,000 per tonne of copper.

2 Mineral reserve estimates for Morococha were prepared under the supervision of, or were reviewed by, Martin Dupuis, P.Geo., and Martin G. Wafforn, P.Eng., as Qualified Persons, as that term is defined in NI 43-101.

3 Tonnes are shown for 92.3% of the Morococha property. Through our subsidiary, Pan American Peru, we have a 92.3% interest in the Morococha property.

Management estimates that mineral resources at the Morococha mine, as at December 31, 2015, are as follows:

Morococha Mineral Resources [1, 2, 3]					
Resource Category	**Tonnes (Mt)**	**Grams of Silver per tonne**	**% Zinc**	**% Lead**	**% Copper**
Measured	0.3	124	3.04	0.96	0.35
Indicated	0.6	155	3.13	1.00	0.39
Inferred	4.8	239	3.14	1.25	0.33

Notes:

1 These mineral resources are in addition to mineral reserves. Estimated using a price of $17.00 per ounce of silver, $1,800 per tonne of zinc, $1,800 per tonne of lead and $5,000 per tonne of copper.

2 Mineral resource estimates for Morococha were prepared under the supervision of, or were reviewed by, Martin Dupuis, P.Geo., and Martin G. Wafforn, P.Eng., as Qualified Persons as that term is defined in NI 43-101.

3 Tonnes are shown for 92.3% of the Morococha property.

Mineral resource estimates are prepared on an annual basis and updated with the additional diamond drilling and channel samples collected during the year, using a variation of the polygonal method in AutoCAD and Excel software. Each vein structure is projected onto a longitudinal section and divided into a series of geometrical blocks. The average true width of the vein intersections is applied to the block area to determine the volume. Sample grades are reviewed and treated for extreme values if necessary, and then the average grade of the intersections within each block is assigned to the block. Bulk density values are applied to the volume of the block to estimate the tonnes of each block, based on the average of bulk density measurements.

The blocks are then depleted for previous mining. Planned mining dilution is applied to each block considering the width, dip angle, mining method, and expected ground conditions of each vein, and an allowance is made for expected mining losses. A value per tonne is applied to each block based on metal content, metal prices, concentrate sales terms, concentrate quality, processing recovery, transportation, refining, and other selling costs such as storage fees, port fees, etc. Any blocks which are considered uneconomic after these parameters are applied either remain as mineral resources or may be removed from the inventory completely if they do not meet the criteria of mineral resources. The mineral reserves are classified as proven or probable depending on the resource classification.

Mineral reserve estimates are based on a number of assumptions that include metallurgical, taxation, and economic parameters. Increasing costs or increasing taxation could have a negative impact on the estimation of mineral reserves. There are currently no known factors that may have a material negative impact on the estimate of mineral reserves or mineral resources.

Mining Operations

Underground mining operations at Morococha consist primarily of conventional and mechanized overhand cut and fill, long hole open stoping, and stope development. Classified tailings pumped hydraulically to stopes and waste rock are used for backfill where needed. Drilling is undertaken with hand held drills or electric hydraulic jumbo drills and the broken ore is removed using scoop trams.

In the Manuelita and Sulfurosa areas of the mine, locomotives transport the ore in rail cars from the chutes to the shafts for hoisting. Highway dump trucks then haul the ore from the coarse ore bins at the shaft to the stockpiles at the mill. In the Codiciada and Alapampa areas of the mine, ore is transported to underground stockpiles using scoop trams and then loaded onto haul trucks for transportation to surface via a haulage ramp.

The Yauli (also known as the Manuelita) production shaft provides access from an underground adit down to the Kingsmill drainage tunnel level. It is equipped with two 2.6 tonne skips which feed into chutes from where material is then transported in rail cars by a small locomotive to an adjacent subsurface truck loading facility. The Maria shaft provides access from surface down to one level above the Kingsmill tunnel, and is comprised of a single split drum hoist with two skips, each with a capacity of 2 tonnes.

We plan to develop the Manuelita and Sulfurosa areas of the mine to 70 metres below the Kingsmill drainage tunnel. This development was started by a previous operator and is now in the process of being extended and expanded using trackless mining equipment and a small inclined shaft to haul waste and a limited amount of ore up to the Kingsmill tunnel elevation, where it is transferred to the Manuelita shaft. The capital investment plan for 2016 includes the deepening of the Manuelita shaft and the development of a pumping station and other infrastructure to permit stoping operations.

Processing and Recovery Operations

Morococha operates an 803,000 tonne per year capacity mill, known as the Amistad mill, using froth induced selective flotation technology to produce silver in zinc, lead, and copper concentrates. The mill flowsheet consists of two-stage crushing, ball mill grinding, selective flotation of the ore to concentrates, followed by thickening and filtering of the concentrates. About half of the tailings from the concentrator are pumped to the Huascacocha tailings facility and the other half is transported back underground where it is used for hydraulic backfill.

The life of mine plan is based on the mineral reserves and contemplates, on a 100% basis, an annual processing rate of 1,726 tpd and then gradually increasing as more mining areas become available. The Morococha deposit is extensive and if current mineral resources can be converted to mineral reserves and/or if new mineral resources are defined and can be converted to mineral reserves, then a new plant will be required to replace the current Amistad plant prior to 2020. The future economic justification of a new plant will rely primarily on mineral reserve growth and metal prices. Although no up to date engineering studies are available, the estimated cost of a new 800,000 tonne per annum processing plant could be significant, on the order of up to $100 million. This cost would be partially offset by the remaining payments due from MCP to honour the June 2010 agreement.

In 2015, the mill processed approximately 690,500 tonnes of ore with metallurgical recoveries of 85.3% for silver, 64.1% for zinc, 59.0% for lead, and 85.8% for copper. Total metal production for the year was approximately 2.3 million ounces of silver, 12,300 tonnes of zinc, 2,800 tonnes of lead, and 8,800 tonnes of copper.

The silver-rich zinc, lead, and copper concentrates from Morococha are sold under contracts with arm's length smelters and concentrate traders, which consider the presence of any deleterious elements. Morococha receives payment for an agreed percentage of the silver, zinc, lead, and copper contained in the concentrates it

sells, after the deduction of smelting and refining costs. We have not had any difficulty securing contracts for the sale of Morococha concentrates; however, there can be no certainty that we will always be able to do so or what terms will be available at the time. Please see "Risks Related to Our Business - Trading Activities and Credit Risk".

The revenue per type of concentrate produced by Morococha for the past three years were as follows:

2015	Revenue[1, 2]	Tonnes
Zinc Concentrate[3]	$13.3 million	25,927
Lead Concentrate[3]	$9.2 million	5,473
Copper Concentrate[3]	$42.2 million	47,627
2014		
Zinc Concentrate[3]	$25.5 million	35,893
Lead Concentrate[3]	$17.8 million	10,113
Copper Concentrate[3]	$35.7 million	15,557
2013		
Zinc Concentrate[3]	$24.1 million	33,763
Lead Concentrate[3]	$16.9 million	8,423
Copper Concentrate[3]	$41.3 million	11,713

Notes:

1 Consists of sales to arm's length customers.

2 Calculated as gross revenue less treatment and refining charges.

3 Zinc and lead concentrates contain payable silver. Copper concentrates contain payable silver and gold.

Infrastructure, Permitting, and Compliance Activities

The mine workings, processing plant, tailings and waste disposal areas, effluent management and treatment facilities, roads, and power and water lines have already been constructed and are located within the boundaries of the mining leases and surface rights controlled by us. To the best of our knowledge, all permits and licenses required to conduct our activities on the project have been obtained and are currently in good standing. The mine is authorized to source the water necessary for operations from nearby lakes. Several mine development waste disposal and tailings disposal sites exist and are sufficient to meet the needs of mining operations. The primary source of power for the mine is the Peruvian national power grid and is sufficient for the mine's current requirements.

In October 2003, the Peruvian government passed legislation requiring active mining operations to file closure plans. In October 2005, administrative rules associated with this legislation were promulgated which laid out detailed closure requirements and required that detailed closure plans and cost estimates be filed by October 2006.

The original closure plan for Morococha was filed by mid-year 2004, and in August of 2006, we submitted a comprehensive closure plan for Morococha to the MEM in accordance with that ministry's regulations and new rules. The closure plan was prepared by third party consultants registered with the Peruvian authorities as qualified to present closure plans to the MEM. The closure plan includes a summary of the proposed closure scheme for each of the major areas of impact such as mine water, tailing facilities areas, waste rock facilities, plant site infrastructure, and the underground mine. A detailed cost estimate was prepared based on Pan American's and the consultant's shared experience with closure works and experience with other projects in Peru. As required by the MEM, the costs were summarized in three phases: concurrent closure, final closure, and post closure. Updated closure plans are filed as required, with the most recent closure plan modification approved in 2012.

The Peruvian government modified its receiving water quality limits in December 2015, bringing the limits in line with current international and North American standards and significantly reducing the potential costs impacts to Morococha. We are conducting a new baseline assessment at Morococha in order to evaluate the potential impact of the latest changes to water treatment practices. We have requested the return of previously presented Adaptation Plan from the Ministry of Energy and Mines. Once returned, we will have 12 months to present a new Adaptation Plan if any upgrades are required to meet the new limits at Morococha. We commenced implementation of measures such as separation of clean runoff and contact water at Morococha in 2015 which make it well placed to meet the new limits without material economic impacts to our operation.

The most significant environmental liability identified at the Morococha mine is the mine's potential share of the cost to operate the Kingsmill Tunnel water treatment plant. The Kingsmill Tunnel is an 11.5 kilometre long underground opening excavated between 1929 and 1934 to dewater the Morococha district mine workings above 4,020 metres above sea level. The water treatment plant was built and is currently being operated by MCP to treat the 1.5 to 1.8 cubic metres per second of water draining from the Kingsmill Tunnel into the Rio Yauli. Morococha's share of the cost was defined by a hydrogeological study completed in 1997 which apportioned responsibility for the costs of constructing and operating the treatment plant as follows: (i) Centromin (72.2%); (ii) our Morococha operations (12.3%); (iii) Soc. Minera Puquiococha (8.5%); (iv) Soc. Minera Austria Duvaz (4.9%); and (v) Minera Centrominas (2.1%). Subsequent to the apportionment of costs, it appears that in connection with the acquisition by MCP of the mining concessions near Morococha, MCP assumed the cost of the construction of the Kingsmill water treatment plant.

The treatment and operating costs for the water treatment facility are directly proportional to both constituent load and flow determined in the 1997 study. The distribution of responsibility stated in the 1997 study was accepted by all involved parties. Our potential share of the responsibility for treatment of the baseline flows, 12.3%, was included in the terms of its purchase of the applicable mining concessions. As a purchase contract entered into during 2003 between Natividad and Argentum establishes that the purchaser is responsible for incremental flows in those concessions, subsequent studies in 2004 were carried out to further characterize the baseline flow conditions in order to establish benchmarks for the determination of responsibility for potential future increases. The results of this 2004 study estimated that 38.46% of the baseline flows were derived from Natividad and Corona concessions now under our control. We challenged this estimate but our challenge was not accepted. The scope of the 2004 study and the resulting recommendations exceeded the terms of the study and presented conclusions that conflicted with previous conclusions and the terms of our purchase of the applicable concessions. It appears that in connection with the acquisition by MCP of the mining concessions near Morococha, MCP also assumed the cost of treatment of the Kingsmill tunnel water so it can be used to supply MCP mineral processing plant.

A closure cost estimate for Morococha was prepared according to State of Nevada approved SRCE methodology in 2011 and is updated every year. The current present value of closure expenditures at Morococha as at December 31, 2015, is approximately $4.5 million. See "Narrative Description of the Business – Environmental Protection" for further disclosure regarding forward looking statements related to reclamation costs.

Internal safety audits have been conducted each year since 2009 by Pan American's Director of Health and Safety and safety managers from our other operations. During 2015, personnel employed at Morococha attended a total of over 113,000 hours of training. The Morococha mine was the recipient of the Chairman's Safety Award for 2015. During 2015, the Morococha mine was aslo awarded first place in the underground mining category by the mining safety institute (ISEM) in Peru for safety performance.

Capital and Operating Costs

Capital expenditures at Morococha during 2015 totalled $7.7 million, primarily on long term mine development advances and infrastructure, exploration drilling, plant upgrades, and equipment overhauls.

In 2016, we anticipate spending between approximately $7.0 million and $8.5 million in sustaining capital. The largest project included in the capital expenditure forecast is the deepening of the Manuelita zone which includes extending the shaft, developing the 510 level, a pumping station and other infrastructure. Other capital projects include in and near mine exploration as well as new and replacement mining equipment.

Exploration, Development, and Production

In 2016, based on an ownership interest of approximately 92.3% of Argentum, our proportionate interest in Morococha's production is forecast to be between 2.45 and 2.60 million ounces of silver, between 3,000 and 3,200 ounces of gold, between 16,100 and 17,000 tonnes of zinc, between 2,700 and 2,800 tonnes of lead, and between 7,500 and 7,800 tonnes of copper. We plan to undertake approximately 12,700 m of exploration drilling in 2016.

C. Bolivia

(i) San Vicente

Project Description, Location, and Access

The San Vicente underground silver-zinc mine is located in the south of Bolivia in the Province of Sud-Chichas, Department of Potosí. San Vicente is located 100 kilometres west of the town of Tupiza and 120 kilometres south of the town of Uyuni. The property is accessible by gravel road from Tupiza and Uyuni. Daily commercial flights operate between Uyuni and La Paz. Both Uyuni and Tupiza are connected through the Bolivian rail system to the ports of Arica and Antofagasta in Chile.

Pan American holds a 95% interest in PASB. The remaining 5% of PASB is owned by Urion Holdings (Malta) Ltd. ("Urion"), an affiliate of Trafigura Baheer B.V. ("Trafigura") (which is described in more detail under "San Vicente - History"). PASB has a joint venture agreement (Contrato de Riesgo Compartido) with Corporación Minera de Bolivia ("COMIBOL") the state mining company of the Plurinational State of Bolivia, pursuant to which PASB holds a 62.5% interest in the cash flow from the operations and is the operator of the San Vicente Property.

The mine property concessions cover an area of 7,021 hectares and consist of 11 concessions, all of which are held in the name of COMIBOL, and PASB is contractually responsible for paying the annual mining tenure tax to maintain the concessions. All of the concessions include the rights for mining, water, and surface usage. As far as we are aware, all of the concessions are in good standing, and to our knowledge, we have met all of the necessary obligations to retain the project.

The known mineralized zones, mineral resources and mineral reserves, mine workings, the processing plant, tailings storage facilities, waste rock storage facilities, and effluent management and treatment systems are located within the concessions held by COMIBOL which are subject to the agreement between PASB and COMIBOL.

Pursuant to a joint venture agreement entered into with COMIBOL in June 1999 (as subsequently amended) with respect to the development of the San Vicente property, PASB became obligated to pay COMIBOL a participation fee of 37.5% (the "Participation Fee") of the operations cash flow and to fund additional development of the mine. Once full commercial production of the expanded San Vicente mine began in 2009, the Participation Fee was reduced to approximately 9.4% until PASB recovered its investment in the San Vicente property, which occurred in December 2012. Thereafter, the Participation Fee reverted back to its original 37.5%. In 2015, the royalties to COMIBOL amounted to approximately $8.1 million (2014 - $10.4 million).

A 2% royalty on 80% of the net smelter returns is also payable to Empresa Minera Unificada S.A. ("EMUSA"), a former partner of PASB on the project. The royalty became payable only after PASB recovered its capital investment in the project and applies only when the average price of silver in a given financial quarter is

$9.00 per ounce or greater. The first royalty payment was made in 2012 and payments have been made annually since then. $0.7 million was paid in respect of this royalty in 2015.

A Bolivian state mining royalty is applied to gross metal value of sales before smelting and refining deductions, and the royalty percentage is a sliding scale of 1% to 6% depending on metal prices. The royalty is deductible from our taxable income only when the international metal price of silver is above $5.50 per ounce. If the international metal price is below $5.50 per ounce of silver, the royalty is creditable against corporate income tax otherwise payable.

To the best of our knowledge, the San Vicente mine is not subject to any other royalties, overrides, back-in rights, payments, or other agreements and encumbrances. PASB is subject to Bolivian taxes, fees and duties.

In early 2009, a new constitution was enacted in Bolivia that further entrenches the government's ability to amend or enact certain laws, including those that may affect mining. On May 1, 2011, the Bolivian President announced the formation of a multi-disciplinary committee to re-evaluate several pieces of legislation, including the mining law and this has caused some concerns amongst foreign companies doing business in Bolivia due to the government's policy objective of nationalizing parts of the resource sector.

On May 28, 2014, the Bolivian government enacted Mining Law No. 535 (the "New Mining Law"). Among other things, the New Mining Law has established a new Bolivian mining authority to provide principal mining oversight (varying the role of COMIBOL) and sets out a number of new economic and operational requirements relating to state participation in mining projects. Further, the New Mining Law provides that all pre-existing contracts are to migrate to one of several new forms of agreement within a prescribed period of time. As a result, we anticipate that the current joint venture agreement with COMIBOL relating to the San Vicente mine will be subject to migration to a new form of agreement and may require renegotiation of some terms in order to conform to the New Mining Law requirements. We are assessing the potential impacts of the New Mining Law and are awaiting further regulatory developments, but the primary effects on the San Vicente operation and our interest therein will not be known until such time as we have, if required to do so, renegotiated the existing contract, and the full impact may only be realized over time.

On June 25, 2015, the Bolivian government further enacted the new Conciliation and Arbitration Law No. 708 (the "New Conciliation and Arbitration Law"), which endeavors to set out newly prescribed arbitral norms and procedures, including for foreign investors. However, whether the New Conciliation and Arbitration Law applies specifically to pre-existing agreements between foreign investors and COMIBOL, and how this new legislation interacts with the New Mining Law, remains somewhat unclear. As a result, we await clarification by regulatory authorities and will continue to assess the potential impacts of the New Conciliation and Arbitration Law on our business.

Additional risks of doing business in Bolivia include being subject to new higher taxes and mining royalties, some of which have already been proposed or threatened, and threatened expropriation of assets, all of which could have a material adverse effect on the operation and the operation's profitability. Please see the discussion under "Risks Relating to Our Business - Foreign Operations" for a further discussion of this risk.

While there are no known significant factors or risks that we currently anticipate might affect access or title, or the right or ability to perform work on the property, including permitting and environmental liabilities, other than as described above, please refer to "Risks Related to Our Business" starting on page 76 for a general discussion of the risks relating to our operations.

History

Surface mining of veins in the area of San Vicente has occurred sporadically since colonial times. Several different owners operated the mine from 1911 through 1950. From 1950 to 1952, the mine was operated by the Aramayo Mining Company. In 1952, the Bolivian government nationalized the mine and placed it under the control of COMIBOL. Following the discovery of new silver and zinc veins in the late nineteen sixties, COMIBOL constructed the 400 tpd Vetillas concentrating plant in 1972, which produced a silver rich zinc concentrate.

The mine was operated by COMIBOL until 1993, at which time mining was suspended pending the privatization of mining in Bolivia. In 1995, the San Vicente mine was made available as part of a joint venture arrangement with COMIBOL. On June 21, 1999, PASB, at that time a wholly-owned subsidiary of Pan American, signed a joint venture agreement with COMIBOL. Under the original terms of the agreement, COMIBOL was entitled to a participation fee equal to 20% to 30% of cash flow for each financial term once the recovery period for PASB's initial investment ended. The contract had a term of 30 years and required a minimum investment by PASB of $20 million.

Between late 2001 and early 2009, PASB and COMIBOL entered into a number of toll mining agreements with EMUSA to process San Vicente's ore at EMUSA's nearby Chilcobija mill. In 2003, PASB entered into a share purchase agreement with EMUSA, whereby EMUSA could acquire up to 49% of the outstanding shares of PASB. This agreement required EMUSA to fund feasibility and development related expenses to an aggregate of $2.5 million by May 1, 2005. EMUSA subsequently met the funding requirement and acquired the 49% interest.

In the fourth quarter of 2005, Pan American negotiated a shareholders' agreement with EMUSA and Trafigura (a minority stakeholder of EMUSA), which agreement contemplated an increase in our shareholding in PASB from 50% to 55%. Pursuant to this shareholders' agreement, which was signed in January 2006, EMUSA would hold 40% of the shares of PASB and Trafigura would hold the remaining 5%.

In July 2006, PASB and COMIBOL renegotiated the terms of the main joint venture contract, changing COMIBOL's participation fee to a fixed percentage participation fee of 37.5% of the operating cash flow, subject to certain deductions in respect of development costs and a reduction in the rate during the recovery period of PASB's investment. Pursuant to an amendment to the contract signed in June 2006, PASB committed to build a new mill, tailings storage facilities and other civil works at San Vicente during an 18 month time period which began in June 2007. The total investment to expand San Vicente and build the new processing facilities was approximately $72 million, excluding recoverable value-added tax. As part of the 2007 amendments, certain other terms were renegotiated, including changing COMIBOL's participation fee to a fixed percentage of 37.5% of the operating cash flow, subject to certain deductions in respect of development costs.

In 2007, Pan American purchased EMUSA's 40% interest in PASB, increasing our share ownership from 55% to the current 95%, and Trafigura continued to hold its 5% interest in PASB. Between 2008 and 2009, we completed construction of a new 750 tpd capacity selective flotation plant and infrastructure as well as continued mining and toll treating ores under an agreement with COMIBOL. Commercial production commenced at the end of the first quarter of 2009. Pan American and Trafigura entered into a new shareholders' agreement in 2010 to reflect the new shareholder relationship. Trafigura assigned its 5% interest in PASB to its affiliate, Urion, in 2013.

Geological Setting, Mineralization, and Deposit Types

San Vicente is located 2.5 kilometres west of the prominent north-south striking San Vicente thrust fault, which forms the eastern limit of the intermountain Bolivian Altiplano basin. Mineralization at the mine site is hosted by conglomerates over-thrusted by a turbidite sequence which outcrops on the east side of the mine.

The regional sedimentary sequence consists of a basement of marine siliciclastic sediments that was folded and later unconformably overlain by continental sediments and a thick sequence of continental clastic sediments (the Potoco and San Vicente formations).

San Vicente is a polymetallic vein deposit formed by hydrothermal systems forming vein type and disseminated polymetallic deposits. Mineralization in the district is known to cover an area of three by four kilometres to a depth of 300 metres. It consists of replacement veins filling pre-existing faults, replacements in brecciated conglomerates in the San Vicente fault, and mineralization in dacitic dykes. Wide veins form in the west-northwest trending structures, with widths of between two and six metres, while veins present in the northwest structures are thinner and shorter. The widest and highest grade veins form in northeast trending faults.

The minerals of economic importance are sphalerite, tetrahedrite, chalcopyrite, and galena. Cassiterite, covellite, and bornite are found in some veins. The primary gangue minerals are quartz, pyrite, marcasite, and barite.

Exploration

Prior to our involvement in the project, there was no known modern exploration on the property aside from the exploitation of silver from exposed veins. Our exploration program began in 1999 following the execution of the joint venture agreement with COMIBOL. Surface diamond drilling was undertaken using HQ sized drill rigs and underground diamond drilling was done using NQ sized drill rigs. In addition to the diamond drilling, an extensive channel sampling program was undertaken in the mine, initially by COMIBOL and later by PASB.

The results of the underground channel samples and the surface and underground drillholes are used for the estimation of mineral resources and mineral reserves. Channel sampling was originally partially done by COMIBOL and later by PASB employees under the supervision of PASB geologists. Diamond drilling is executed by third party contractors under the supervision of PASB geologists. There are no known sample recovery, contamination, or bias issues that could have a material impact on the reliability of the sample results.

Drilling

Diamond drilling at the mine has been undertaken using a combination of HQ sized drill rigs at the surface and NQ sized drill rigs from underground. Drillhole spacing is variable and ranges from between 35 to 100 metres, depending on the vein. The information obtained from the diamond drilling programs was used for the estimation of mineral resources and mineral reserves.

Sampling, Analysis, and Data Verification

Channel samples are taken by PASB from the backs of drifts, the ribs of crosscuts, the backs of stopes, and the ribs of raises, every four metres across the veins in 20 centimetre wide channels approximately three centimetres deep. Stopes are channel sampled every 1.6 metres vertical cut on two metre centres along strike. The sample interval varies from 0.2 to 10.8 metres. There are no known core or sample recovery problems which could materially impact the accuracy and reliability of the results.

During the entire procedure from drilling, sampling, and analysis, sample security is controlled by PASB employees or by the commercial laboratories once the samples have been delivered to the preparation facilities. We have no reason to believe that the validity and integrity of the samples have been compromised.

In the past, the channel samples are prepared by Bondar-Clegg laboratories (now ALS Chemex) in Oruro, Bolivia or by SGS in La Paz, and then sent to their respective Lima facilities for analysis of silver, zinc, lead, and copper content using atomic absorption spectroscopy. The samples are now prepared and analysed by the San Vicente site laboratory. The drill core samples are crushed, split, and pulverised by ALS Chemex, then analysed for silver, zinc, lead, and copper content using atomic absorption spectroscopy. Any sample with a silver grade greater than 500 grams per tonne is re-assayed by fire assay, and samples with greater than 10% zinc are performed using titrimetric analysis.

The QAQC program includes the submission of blanks, standards, and duplicate samples to the primary laboratory and the submission of check samples to a secondary laboratory. The results of the QAQC programs indicate that the sample assays are reliable for the estimation of mineral resources and mineral reserves.

Mineral Processing and Metallurgical Testing

As part of normal plant operation procedures, metallurgical analysis and testing is undertaken as required. The majority of these analyses are to assess mill performance and metallurgical recovery. Metal recovery forecasts used in our mine plans are based on the historical performance of the plant operations and the tonnes and grade of material that is planned to be mined.

Mineral Resource and Mineral Reserve Estimates

Management estimates that mineral reserves at the San Vicente mine, as at December 31, 2015, are as follows:

San Vicente Mineral Reserves [1, 2, 3]				
Reserve Category	**Tonnes (Mt)**	**Grams of Silver per tonne**	**% Zinc**	**% Lead**
Proven	2.0	482	2.66	0.35
Probable	0.4	511	2.24	0.48
TOTAL	2.4	487	2.59	0.37

Notes:

1 Estimated using a price of $17.00 per ounce of silver, $1,800 per tonne of zinc and $1,800 per tonne of lead.

2 Mineral reserve estimates for San Vicente were prepared under the supervision of, or were reviewed by, Martin Dupuis, P.Geo., and Martin G. Wafforn, P.Eng., as Qualified Persons as that term is defined in NI 43-101.

3 Tonnes are shown for 95% of the San Vicente property as Pan American holds a 95% interest in PASB.

Management estimates that mineral resources at the San Vicente mine, as at December 31, 2015, are as follows:

San Vicente Mineral Resources [1, 2, 3]				
Resource Category	**Tonnes (Mt)**	**Grams of Silver per tonne**	**% Zinc**	**% Lead**
Measured	0.9	194	2.12	0.15
Indicated	0.2	207	2.57	0.16
Inferred	2.2	318	2.33	0.30

Notes:

1 These mineral resources are in addition to mineral reserves. Estimated using a price of $17.00 per ounce of silver, $1,800 per tonne of zinc and $1,800 per tonne of lead.

2 Mineral resource estimates for San Vicente were prepared under the supervision of, or were reviewed by, Martin Dupuis, P.Geo., and Martin G. Wafforn, P.Eng., as Qualified Persons as that term is defined in NI 43-101.

3 Tonnes are shown for 95% of the San Vicente property as Pan American holds a 95% interest in PASB.

Mineral resource estimates are prepared annually and updated with the additional drillhole and channel samples collected during the year, using industry standard mining software. The samples are composited to a common vein width and treated for outlier grades. A block model for each vein is constructed based on the interpretations from mapping, channel and drillhole logs, and assay values. Silver, lead, and zinc grades are estimated into the blocks using ordinary kriging, and bulk density is estimated into each block based on the estimated grades. The estimate is validated and classified for confidence categories depending on the number of samples available to the estimate and the grade continuity in each vein. Any vein with a width of less than the minimum mining width is diluted with waste to the minimum mining width, and mining dilution and recovery factors are applied to each block. The dilution and loss applied to each vein is assessed each year and adjusted according to the actual dilution experienced during mining. The estimate is depleted annually to account for production occurring during the previous year.

Following the estimation of diluted tonnes and grade in each block, a value per tonne is applied to each block based on metal content, metal prices, concentrate sales terms, concentrate quality, metallurgical recovery, transportation, refining, and other selling costs such as storage fees, port fees, etc, as well as operating costs and mining costs dependent upon the mining method.

Mineral reserve estimates are based on a number of assumptions that include metallurgical, taxation, and economic parameters. Increasing costs or increasing taxation could have a negative impact on the estimation of mineral reserves. There are currently no known factors that may have a material negative impact on the estimate of mineral reserves or mineral resources at San Vicente.

Mining Operations

Ore is extracted at the San Vicente underground mine using conventional shrinkage stoping and long hole mining. Access to the mine for workers and equipment is provided by ramps leading to adits at the surface while waste and ore material is hoisted to the surface using both haul trucks on the ramp and hoisting at the Pelayo shaft. Locomotives are used to move broken ore and waste on the levels.

Processing and Recovery Operations

San Vicente operates a 750 tonne per day nominal capacity plant using a standard flotation process to produce a silver-zinc concentrate and a silver-lead concentrate. Ore from the mine passes through a jaw crusher at the plant, and then is fed into a semi-autogenous mill/ ball mill grinding circuit. Following the concentration process in the flotation circuit, the concentrates are thickened and dewatered in filter presses prior to shipping. Tailings are stored in a tailings storage facility approximately 1.5 kilometres from the concentrator. In 2015, a total of 348,200 tonnes of ore were processed with metallurgical recoveries of 92.6% for silver, 77.5% for zinc, and 80.5% for lead. Total metal production for the year was approximately 4.3 million ounces of silver, 7,200 tonnes of zinc, and 900 tonnes of lead.

The silver-zinc and silver-lead concentrates from San Vicente are sold under contracts with arm's length smelters and concentrate traders, which consider the presence of any deleterious elements. Both the silver-zinc and the silver-lead concentrates are taken by truck and rail to ports in Chile for shipment. We have not had any difficulty in securing contracts for the sale of the San Vicente concentrates, however, there can be no certainty we will always be able to do so or what terms will be available at the time. Please see "Risks Related to our Business – Trading Activities and Credit Risk".

The revenue per type of concentrate produced by San Vicente mine for the past three years were as follows:

2015	**Revenue[1, 2]**	**Quantity**
Zinc Concentrate[3]	$14.0 million	14,152 tonnes
Lead Concentrate[3]	$50.4 million	6,744 tonnes
2014	**Revenue[1, 2]**	**Quantity**
Zinc Concentrate[3]	$12.9 million	12,099 tonnes
Lead Concentrate[3]	$63.9 million	7,444 tonnes
2013	**Revenue[1, 2]**	**Quantity**
Zinc Concentrate[3]	$12.2 million	11,815 tonnes
Lead Concentrate[3]	$61.8 million	6,452 tonnes

Notes:

1 Consists of sales to arm's length customers.

2 Calculated as gross revenue less treatment and refining charges.

3 Zinc concentrates contain payable silver. Lead concentrates contain payable silver and gold.

Infrastructure, Permitting, and Compliance Activities

The mine workings, processing plant, tailings and waste disposal areas, effluent management and treatment facilities, roads, and power and water lines have already been constructed and are located within the boundaries of the mining leases and surface rights controlled by us. To the best of our knowledge, all permits and licenses required to conduct our activities on the project have been obtained and are currently in good standing. We have agreements in place to obtain the water required for mining and processing from a combination of water wells and surface water. A power transmission line connects the mine to the Bolivian national power grid at Portugalete and supplies sufficient power for the plant and mining operations.

In compliance with the Environmental Regulation for Mining Activities, PASB commissioned MINCO SRL, a Bolivian consulting firm, to conduct a base line environmental audit ("ALBA") of the San Vicente mine, as well as other environmental studies in satisfaction of Bolivian laws and regulations. The ALBA sets out the present situation of the environment at the project and identifies environmental liabilities regarding pre-existing waste rock dumps and the environmental impact on soil, water, vegetation and solid residues caused by previous mining activities conducted on the property.

Construction of the new processing plant, tailings facility and ancillary facilities at San Vicente required another update to the environmental licence that was originally issued in 2002. To this end, PASB presented the application in 2007 and was advised by the Bolivian authorities that a comprehensive environmental impact assessment ("EIA") would be required for the proposed projects due to the scope and nature of the proposed changes to the operations. After a public consultation period, PASB submitted a comprehensive EIA in December 2007. A review of the EIA was initiated by the Bolivian authorities and the environmental license was granted for the San Vicente mine in May 2008.

The most significant environmental issues currently associated with the San Vicente mine are related to the waste dumps, the need to pump low pH water from the mine, the permanent drainage from the Pelayo waste rock dump that runs into the San Vicente River, and water discharge from the San Juan and San Francisco adits. PASB constructed and operates an active chemical treatment system to improve the water quality and comply with its environmental permits. Upgrades to the reagent dosing system and sludge handling at the plant commenced in 2015 and are expected to be completed in Q2 2016. Improvements to the historic Pelayo waste rock dump were implemented in 2013 and 2015 to reduce contact with the San Vicente River.

In order to remediate environmental hazards or concerns caused by previous owners of the San Vicente mine, PASB has focused on the recommendations outlined in the EIA, together with the complementary studies of Health and Industrial Safety, the Handling of Solid Residues procedures, the Closure and Rehabilitation Plan and the Contingency Plan. As per the joint venture agreement between COMIBOL and PASB, the equipment, facilities and infrastructure become the property and responsibility of COMIBOL upon the cessation of operations.

A closure cost estimate for San Vicente was prepared according to State of Nevada approved SRCE methodology in 2011 and is updated every year. We have estimated the present value of reclamation costs for the San Vicente property to be approximately $2.2 million at December 31, 2015. Pan American has not accrued any amounts for any prior existing environmental liabilities. See "Narrative Description of the Business – Environmental Protection" for further disclosure regarding forward looking statements related to reclamation costs.

Internal safety audits are conducted annually at the San Vicente mine by Pan American's Director of Health and Safety and safety managers from some of our other mines. During 2015, personnel employed at the mine attended more than 5,000 hours of safety training.

Capital and Operating Costs

In 2015, capital expenditures at San Vicente totalled $3.3 million and consisted primarily of mine infrastructure upgrades, equipment overhauls, and exploration drilling.

The expected sustaining capital budget for 2016 at San Vicente totals between $3.0 million and $4.0 million, the major components of which include mill equipment refurbishment, mine equipment replacements, a ventilation raise, a pump station, and near mine exploration.

Exploration, Development, and Production

In 2016, we anticipate producing between 4.30 million and 4.35 million ounces of silver, between 7,400 and 7,500 tonnes of zinc, and between 800 and 900 tonnes of lead. We plan to undertake approximately 9,200 m of exploration drilling in 2016.

D. Argentina

(i) Manantial Espejo

Project Description, Location, and Access

The Manantial Espejo open pit and underground silver-gold mine is located in the Province of Santa Cruz, Argentina. Puerto San Julian is located 160 kilometres to the east on the Atlantic coast and Gobernador Gregores is located 60 kilometres to the west. The main access is via a gravel secondary road that connects the project with Puerto San Julian and Gobernador Gregores, the nearest major urban centers to the mine. Puerto San Julian has a population of approximately 5,500.

The mine is held 100% by our wholly owned Argentine subsidiary, MTA. The Manantial Espejo mine consists of 17 mineral concessions covering a total of 25,533 hectares and extending approximately 36 kilometres east-west and 19 kilometres north-south. The mineral concessions forming Manantial Espejo are, by law, subject to minimum expenditure requirements with respect to which we had entered into an agreement with the government of Argentina. We believe that MTA has continuously been in compliance with such agreement, and to our knowledge, we have met all of the necessary obligations to retain the project. The property includes ownership of three surface properties purchased by MTA to facilitate support and to improve the performance of its mining and exploration activities. These surface rights cover an area of 43,207 hectares and at this time all mining and processing related activities occur within these properties. To the best of our knowledge, all permits and licenses required to conduct our activities on the project have been obtained and are currently in good standing. All of the mineral resources and mineral reserves, mine workings, plant facilities, tailings ponds, and waste storage areas are contained within the leases controlled by MTA.

Production from the Manantial Espejo property is subject to royalties to be paid to Barrick Exploraciones Argentina S.A. (“Barrick”) according to the following: (i) $0.60 per metric tonne of ore mined from the property and fed to process at a mill or leaching facility to a maximum of 1 million tonnes; and (ii) one-half of one percent (0.5%) of net smelter returns derived from the production of minerals from the property. In addition, MTA has negotiated a royalty equal to 3.0% of operating cash flow payable to the Province of Santa Cruz.

To the best of our knowledge, the mine is not subject to any other royalties, overrides, back-in rights, payments or other agreements and encumbrances. The Company’s operations in Argentina are subject to taxes, fees and duties.

In December 2015, the legislature of the Province of Santa Cruz passed a bill into law which abrogated the mining property tax that had been introduced in September 2013. The decree in which the new law was published confirmed that the mining property tax was unconstitutional because: (i) it contravened the contents of Federal Mining Investments Law, and (ii) it attempted to regulate matters reserved to Federal legislation. It is unclear on whether any or all of the subject taxes already paid will be refunded or credited.

Since 2011, the Federal Government of Argentina had increasingly controlled foreign exchange, imports and exports and the inflow and outflow of capital in response to unfavourable domestic economic trends. Certain of these restrictions have very recently been eased with the election of a new Federal Government in late 2015,

but it remains uncertain as to whether such changes will be lasting, whether additional changes will be made or how our business will be impacted. See “Risks Related to Our Business – Foreign Operations”.

While there are no known significant factors or risks that we currently anticipate will affect access or title, or the right or ability to perform work on the property, including permitting and environmental liabilities, please refer to "Risks Related to Our Business" starting on page 76 for a general discussion of the risks relating to our operations.

History

Reconnaissance exploration on the Manantial Espejo property was first carried out in the 1970s by the Argentinean government and in 1989, ownership of the original interest in the mineral properties constituting the Manantial Espejo project was acquired by Mr. Roberto Schupbach. Pursuant to an agreement entered into in 1991 between Mr. Schupbach and Compañía Minera San Jose S.A. (a wholly owned subsidiary of St. Joe Minerals), Mr. Schupbach sold his mineral property rights to Minera San Jose. Later in the same year, St. Joe Minerals was acquired by Lac Minerals Ltd., and then in 1994, Barrick acquired Lac Minerals Ltd. and assumed ownership.

In 1996, Triton Mining Corporation (“Triton”) entered into an option agreement with Barrick to earn the right to acquire an 80% interest in the project for a total cost of $2.5 million, which right Triton then assigned to its wholly owned subsidiary MTA. Exploration on the property was advanced in 1996 by Barrick, which completed 62 diamond drill holes on the Maria Vein. In 1997, an additional 42 core drill holes were completed and a pre-feasibility study commenced for the construction of an open pit mine and cyanidation mill processing facility to treat and recover silver and gold from the Maria Vein.

In 1998, MTA completed making the required payments under the option agreement. Barrick and MTA subsequently incorporated Compañía Minera Alto Valle (“Alto Valle”) for the purpose of holding beneficial title to the properties, and pursuant to a shareholders’ agreement, Barrick held 20% and MTA held 80% of the shares of Alto Valle, respectively, and MTA was designated operator of the project.

In 1998, Blackhawk Mining Inc. (“Blackhawk”) purchased all of the issued shares of Triton, which was a public company with shares traded on the Toronto Stock Exchange. Also, in 1998, Silver Standard Resources (“SSR”) entered into an option agreement with Triton to acquire a 50% interest in MTA. Then, in April of 2001, SSR acquired Barrick’s 20% interest in Alto Valle (2,400 shares), half of which it agreed to sell to Blackhawk in consideration for an interest in an unrelated mining venture.

In 2002, SSR acquired Triton’s remaining 50% interest in MTA, as well as Blackhawk’s 1,200 shares in Alto Valle. Concurrently, SSR agreed to sell to us 50% of the shares of MTA and half of the shares (1,200) it held in Alto Valle directly. Pan American acquired this 50% interest in the project for a purchase price of $1,912,433, which consisted of a cash payment in the amount of $662,433 and a transfer of 231,511 of our Common Shares valued at $1,250,000. In addition, we agreed to pay 50% of $200,000 in order to eliminate a 1.2% net smelter return royalty payable by SSR to Blackhawk and agreed to fund the first $3 million of joint venture expenditures following the issuance of a production notice. In March 2006, we negotiated and entered into a purchase agreement with SSR to acquire SSR’s 50% interest in MTA and Alto Valle, respectively, thus becoming a 100% owner of the Manantial Espejo project.

In March 2006, we received approval of the EIS from the Santa Cruz Province of Argentina and signed an agreement with the Federal Government of Argentina and the Province of Santa Cruz to bring grid electrical power to the town of Gobernador Gregores with a sub-connection to Manantial Espejo. In April 2006, mine development activities were initiated and by 2008, mining operations in two open pits and two underground mines and the mills, leach circuits, counter-current-decantation, Merrill Crowe, and refinery commenced operations. The primary crusher, recycle pebble crusher and concentrate circuits were completed by early 2009.

In 2010, we completed a merger of MTA with Alto Valle.

Geological Setting, Mineralization, and Deposit Types

Manantial Espejo lies near the southwestern end of the Deseado Massif, a large igneous province dominated by ignimbrites of the Chon Aike and La Matilde Formations and minor andesites and basaltic andesites of the Bajo Pobre Formation. The project area consists of a volcanic complex related to a collapsed caldera. The lithologies of the area consist mostly of sub-aerial volcanic extrusive sequences.

Silver and base metal mineralization in the Manantial Espejo district is spatially and genetically related to the Deseado Massif, where mineralization is hosted by the Chon-Aike and La Matilde Formations.

The mineralized deposits at the Manantial Espejo mine are predominantly veins with short strike slip and larger down dip displacements. The styles of mineralization include massive quartz veins, vein breccias, sheeted and stockwork veining, and minor dissemination. Gold occurs mainly as electrum in pyrite while the silver occurs in a number of forms including argentiferous galena and silver sulphosalts. Sulphides account for up to 3% to 5% of the rock mass as veinlets and disseminations.

Mineralization at Manantial Espejo is hosted in four main veins known as María, Karina/Unión, Melissa, and Concepción. The majority of the mineralization outlined to date is in the María Vein. The vein is a thick silica vein exposed on surface for more than one kilometre and has been intersected at a depth of up to 275 metres. This vein averages 7.8 metres in true width and ranges from 0.63 metres to 20 metres and is open to the east and at depth. Economic grade mineralization of the vein is less continuous. Open pit economic grade zones measure tens to hundreds of metres in longitudinal dimension. Underground economic grade zones measure tens of metres in longitudinal dimension, with over 100 metres of vertical extent in the María West area.

The Karina/Unión Vein is exposed on surface for a distance of 850 metres and has been drilled to a depth of 150 metres. Several interconnected high grade silver-gold epithermal veins in excess of 20 metre true widths have been observed in drillhole intersections.

The Melissa vein is thought to be the extensional component to the María shear system. The Melissa Vein has been defined by drill holes along a 300 metre strike length and 200 metres down dip and averages from between 1.5 metres and 2.5 metres wide.

The Concepción Vein is a single quartz vein. Mineralization occurs over a strike length of 600 metres and is open at depth and at both ends. The host rocks, mineralogy and alteration are similar to the other veins on the property.

Exploration

Reconnaissance exploration on the Manantial Espejo mine was first carried out in the 1970s by the Argentinean government. Exploration on the property was advanced in 1996 and 1997 by Barrick, which drilled 104 diamond holes on the María vein. In 1998, Triton, with SSR as the operator, drilled 18 diamond drillholes on the María vein, and in 1999, Triton completed some additional prospecting, soil sampling, mapping, and a further 17 holes on other targets. In 2000, a reverse circulation and diamond drilling campaign was completed to sample the newly defined Karina, Unión, and Melissa deposits. In 2001, a reconnaissance campaign was conducted with the goal of expanding the mineral resources by drilling the María, Melissa, and Karina-Unión veins.

We began exploration efforts in 2002 by collecting surface trench samples and completing 4,472 metres of diamond drilling on the María and Karina-Unión veins. Since 2002, we have completed diamond drilling programs on an annual basis to estimate mineral resources and mineral reserves. All of the project exploration has been carried out by company geologists or contractors under the supervision of company geologists.

There are no known sample recovery, contamination, or bias issues that could have a material impact on the reliability of the sample results.

Drilling

Drilling on the Manantial Espejo mine has been by diamond core, reverse circulation and wagon-mounted percussion drilling methods. The diamond core samples are considered to be of good quality and representative of the deposits, and only five of the reverse circulation holes in the María vein have been used to estimate mineral resources and mineral reserves. All MTA core has been HQ diameter with the exception of re-entry into Barrick holes for deepening, for which NQ diameter was used.

Sampling, Analysis, and Data Verification

Samples average approximately 1.0 metres in length. There are no known drilling, sampling, or recovery factors that could materially impact the accuracy of reliability of the results.

All drill core is delivered from the drill rigs to the core shed at the Manantial Espejo site by MTA personnel and transported by MTA personnel to Puerto San Julian, where they are then transported by bus or truck to Mendoza. Once the samples are received by ALS, they are maintained under the control of the laboratory. There is no reason to believe that the validity and integrity of the samples has been compromised.

ALS Chemex assays the sample for gold using fire assay with atomic absorption finish and for silver by four acid digest with atomic absorption finish. Any samples with assays greater than 100 grams per tonne silver and/or 10 grams per tonne gold are re-assayed by fire assay with gravimetric finish. MTA geologists submit certified standard samples and blanks to the primary laboratory and approximately 10% of the samples are sent to Acme Analytical Laboratories S. A. of Santiago for check assays.

The samples used to estimate mineral resources and mineral reserves at Manantial Espejo are considered to be representative and there are no known factors that may have resulted in sample biases.

Mineral Processing and Metallurgical Testing

As part of normal plant operation procedures, metallurgical analysis and testing is undertaken as required. The majority of these analyses are to assess mill performance and metallurgical recovery. Metal recovery forecasts used in our mine plans are based on the historical performance of the plant operations and the tonnes and grade of material that is planned to be mined.

Mineral Resource and Mineral Reserve Estimates

Management estimates that mineral reserves at Manantial Espejo, as at December 31, 2015, are as follows:

Manantial Espejo Mineral Reserves [1, 2]			
Reserve Category	**Tonnes (Mt)**	**Grams of Silver per tonne**	**Grams of Gold per tonne**
Proven	2.5	120	1.60
Probable	0.3	262	3.90
TOTAL	2.7	135	1.84

Notes:

1 Estimated using prices of $14.50 per ounce of silver and $1,100 per ounce of gold for planned 2016 production, then using $17.00 per ounce of silver and $1,180 per ounce of gold.

2 Mineral reserve estimates for Manantial Espejo were prepared under the supervision of, or were reviewed by Martin Dupuis, P.Geo., and Martin G. Wafforn, P.Eng., as Qualified Persons as that term is defined in NI 43-101.

Management estimates that mineral resources at Manantial Espejo, as at December 31, 2015, are as follows:

Manantial Espejo Mineral Resources [1, 2]			
Resource Category	**Tonnes (Mt)**	**Grams of Silver per tonne**	**Grams of Gold per tonne**
Measured	0.9	99	1.14
Indicated	0.5	188	1.84
Inferred	0.5	208	2.64

Notes:

1 These mineral resources are in addition to mineral reserves. Estimated using prices of $25 per ounce of silver and $1,400 per ounce of gold.

2 Mineral resource estimates for Manantial Espejo were prepared under the supervision of, or were reviewed by Martin Dupuis, P.Geo., and Martin G. Wafforn, P.Eng., as Qualified Persons as that term is defined in NI 43-101.

Mineral resource estimates are prepared on an annual basis using industry standard mining software and based on the information collected during drilling campaigns in the previous year. Three dimensional lithological and grade estimation domains are prepared with respect to geological and geostatistical exploratory data analysis. Interpretations of clay alteration, disseminated pyrite content, and bulk density are also applied to the model. The samples are treated for extreme grades and composited to a common length. Ordinary kriging is used to estimate gold and silver grades into the block mode. The mineral resource estimate is then classified for confidence categories based on the density of available drillholes. The mineral resource estimate is diluted with respect to the anticipated mining method in each mineral resource estimate, and depleted for the previous year's mining. Metal prices, cost, revenue, and metal extraction parameters are estimated on an annual basis to define a silver equivalent cut-off grade.

Mineral reserves are estimated by discounting the mineral resources by 15% for mining losses associated with pillars left behind for stability and safety reasons. Optimized pit designs are prepared for each open pit mining area and geometries are prepared for underground mining panels.

Mineral reserve estimates are based on a number of assumptions that include metallurgical, taxation, and economic parameters. Increasing costs or increasing taxation could have a negative impact on the estimation of mineral reserves. There are currently no known factors that may have a material negative impact on the estimate of mineral reserves or mineral resources at Manantial Espejo.

Mining Operations

Ore is mined at Manantial Espejo using a combination of conventional open pit and underground mining methods. The surface mining operations use 54 tonne and 30 tonne trucks and front end loaders and track shovel loading equipment. The underground mining operations consist of either long-hole, cut and fill, or shrinkage methods.

Processing and Recovery Operations

Ore is treated by conventional crushing, semi-autogenous/ball mill grinding, bulk gravity concentration, intensive gravity concentrate agitation leaching, thickening, agitated cyanide leaching of the gravity tailings slurry, counter current decantation thickening, Merrill Crowe zinc precipitation, sulphur dioxide cyanide neutralization, conventional pulp tailings disposal, and conventional silver and gold doré bar production from melting of the Merrill Crowe precipitate. The nominal treatment rate at design capacity is 2,000 tpd of ore.

In 2015, we processed approximately 774,900 tonnes of ore with metallurgical recoveries of 91.6% silver and 94.9% gold, producing 3.6 million ounces of silver and 77,300 ounces of gold.

All production from the Manantial Espejo mine is in the form of doré bars, which is refined at arm's length refineries prior to the sale of refined silver and gold to bullion banks and traders. We have entered into multi-year refining contracts with two refineries for the production from Manantial Espejo. We have not had any difficulty in securing contracts for the sale of Manantial Espejo doré, however, there can be no certainty that we will always be able to do so or what terms will be available at the time. Please see "Risks Related to our Business – Trading Activities and Credit Risk".

During the past three years, the revenue produced by the Manantial Espejo mine was as follows:

2015	Revenue[1, 2]	Quantity
Silver and Gold in Doré	$145.0 million	3,654,556 ounces of silver 82,735 ounces of gold
2014		
Silver and Gold in Doré	$156.1 million	3,859,900 ounces of silver 72,278 ounces of gold
2013		
Silver and Gold in Doré	$149.7 million	3,306,429 ounces of silver 55,617 ounces of gold

Notes:

1 Consists of sales to arm's length customers.

2 Calculated as gross revenue less treatment and refining charges.

Infrastructure, Permitting, and Compliance Activities

The mine workings, processing plant, tailings and waste disposal areas, effluent management and treatment facilities, roads, and power and water lines have already been constructed and are located within the boundaries of the mining leases and surface rights controlled by us. To the best of our knowledge, all permits and licenses required to conduct our activities on the project have been obtained and are currently in good standing. Power is sourced from a transmission line connected to the national power grid. Water is sourced from underground mine water and surface mine dewatering wells.

An EIA for the project as required under the laws of the Province of Santa Cruz and the Argentine Republic was prepared including mine design, tailing design, utility supply, water development studies, impact assessment, and records of extensive public consultation. In March 2006, we obtained approval of the EIA from the Province of Santa Cruz. The EIA is updated every two years.

No reclamation bond is currently required for mining operations in Argentina, however environmental reclamation insurance is required and we hold a policy for Manantial Espejo. A preliminary reclamation plan was developed for the project and included in the EIS submitted to the Argentine government during 2006. A recent update EIA approved in December 2015 included an update to the reclamation plan and fulfills all closure planning requirements under Argentine law.

A closure cost estimate for Manantial Espejo was prepared according to State of Nevada approved SRCE methodology in 2011 and is updated every year. Pan American has estimated the present value of reclamation costs for the Manantial Espejo mine to be approximately $8.7 million as at December 31, 2015. See "Narrative Description of the Business – Environmental Protection" for further disclosure regarding forward looking statements related to reclamation costs.

Internal safety audits have been conducted annually by Pan American's Director of Health and Safety and safety managers from some of our other operations. Manantial Espejo was the recipient of the Chairman's Safety Award for safety performance in both 2010 and 2011, years in which Manantial Espejo went without any LTIs, and

also worked all of 2013 without an LTI. Personnel at Manantial Espejo attended more than 5,000 hours of training during 2015.

Capital and Operating Costs

Capital expenditures at Manantial Espejo during 2015 totalled $14.1 million and consisted mainly of open pit pre-stripping, tailings storage facility expansion, and near mine exploration.

Capital investments in 2016 are expected to be between $2.0 million and $2.5 million, primarily for near mine exploration and improvements to the processing plant.

Exploration, Development, and Production

In 2016, we anticipate producing between 3.60 and 3.75 million ounces of silver, and between 64,600 and 68,100 ounces of gold. We plan to undertake approximately 7,000 m of exploration drilling in 2016.

II. Development Properties

(i) Navidad Property

Project Description, Location, and Access

The Navidad silver development property is located in Gastre Department in the Province of Chubut, southern Argentina, 1,580 kilometres southwest of Buenos Aires and 360 kilometres west of Puerto Madryn. The Navidad project is accessible year round by road from the small communities of Gastre and Gan Gan, which are located on a provincial highway and have less than 1,000 inhabitants. The nearest airport is located in Esquel, about four hours' drive to the southwest by gravel road.

We are the operators of the development project through our wholly owned subsidiary, MASA. The main Navidad property block containing all of the current mineral resources is comprised of four 2,500 ha blocks granted with Manifestación de Descubrimiento ("MD") permits. MASA also holds the rights to additional MDs in the Province of Chubut. All of these MDs are in good standing with the mining authorities of the Province of Chubut, and to our knowledge, we have met all of the necessary obligations to retain the project. Our tenements are subject to Argentinean law and policy, which may in the future result in surrender of certain of its tenements outright and/or the reduction in area of our holdings.

Access to land for drilling and other exploration activities is allowed through outright surface ownership as well as through a series of easement contracts with neighbouring surface owners. We hold large surface land rights covering all known mineral resources through MASA. The remaining surface rights belong to several other land holders and access is either in negotiation or has been granted through agreements with the owners.

All of the known mineralized zones and planned mine workings, processing plant, effluent management and treatment systems, and tailings disposal areas relating to project are located within the boundaries of the concessions and surface rights.

Silver Wheaton Corp., through its subsidiary, Silverstone Resources (Barbados) Corp., has the right to purchase 12.5% of the life of mine payable silver produced at the Loma de La Plata deposit pursuant to a convertible debenture that, upon conversion, committed the parties to a future "silver stream" agreement. This agreement remains to be negotiated with Silver Wheaton Corp.

There is a provincial royalty of 3% of the "Operating Income" in the Province of Chubut. Operating Income is defined as revenue minus production cost (not including mining costs), treatment and transportation charges.

To the best of our knowledge, the project is not subject to any other royalties, overrides, back-in rights, payments or other agreements and encumbrances. The Company's operations in Argentina are subject to government taxes, fees and duties.

The Province of Chubut passed a law in 2003 (Law 5001) that prohibits open pit mining and the use of cyanide in mineral processing in the entire province, effectively preventing the development of Navidad. To date, this law remains in place. Please see the discussion below under "Risks Relating to Our Business – Restrictions on Mining".

There are material governmental and legal factors that affect the mineral resources at Navidad and the conversion of the mineral resources to mineral reserves. Legislation in place in the Province of Chubut currently prohibits open pit mining and the use of cyanide in the entire province. No cyanide will be used to process the material anticipated to be mined at Navidad, but given the depth and orientation of the deposits, the economic mine plan involves open pit mining. Because of these governmental and legal factors, the otherwise economically viable portions of the deposit cannot be estimated as mineral reserves at this time.

Since 2011, the Federal Government of Argentina increasingly controlled foreign exchange, imports and exports and the inflow and outflow of capital in response to unfavourable domestic economic trends. With the election of a new Federal Government in Argentina in late 2015, certain of these restrictions have very recently been eased, but it remains uncertain as to whether such changes will be lasting, whether additional changes will be made or how our business will be impacted. See "Risks Related to Our Business – Foreign Operations".

While there are no other known significant factors or risks that we currently anticipate will affect access or title, or the right or ability to perform work on the property, including permitting and environmental liabilities, please refer to "Risks Related to Our Business" starting on page 76 for a general discussion of the risks relating to our operations.

History

The first known exploration program that included the Navidad property area consisted of a preliminary regional geochemical sampling program conducted by Normandy Argentina ("Normandy") in mid-2000 to locate additional deposits to supplement those known at its Calcatreu Property, a gold and silver deposit located approximately 80 kilometres from Navidad. The program consisted of 1,200 bulk leach extractable gold (BLEG) stream sediment samples taken from what was then considered open exploration ground, and resulted in the identification of Navidad.

In January and February 2002, Newmont Mining ("Newmont") purchased Normandy's worldwide mining interests. In September 2002, IMA Exploration Inc. ("IMA") signed a confidentiality agreement in order to obtain a copy of the information brochure and technical data related to Newmont's Argentinean interests, which included the Calcatreu project. In December 2002, IMA applied for exploration concessions over the Navidad area, utilizing and relying upon the Normandy BLEG data, and began undertaking a regional exploration program including regional mapping and sampling. From December 2002 to July 2006, IMA conducted diamond drilling, geochemical sampling, geophysical exploration, and mineral resource estimates at Navidad.

In January 2003, Aquiline entered into an agreement with Newmont, which was completed in July 2003, to purchase all of the shares of Normandy and Newmont's 100% interest in Calcatreu, and acquired all of Newmont's assets including the BLEG data. In May 2003, Aquiline reviewed the BLEG data and found that the ground covered by the BLEG data had already been claimed by IMA. After failure to receive a credible response from IMA as to how they could otherwise have made a legitimate discovery at Navidad without having breached the terms of the confidentiality agreement, Aquiline went on to file suit in the Supreme Court of British Columbia in March 2004.

The Supreme Court of British Columbia awarded ownership of the Navidad property to Aquiline on July 14, 2006, following a court case with IMA where IMA was found to have breached the Confidentiality Agreement. IMA subsequently appealed to the Court of Appeal of British Columbia, but lost the appeal in June 2007. An

Application for Leave to Appeal to the Supreme Court of Canada was filed by IMA in September 2007. Sole ownership rights were granted to Aquiline by the Supreme Court of Canada on December 20, 2007, subject to Aquiline making payment to IMA which would reimburse the latter for its accrued exploration expenditures up to the July 2006 court decision. Aquiline's final payment to IMA was made on February 8, 2008, giving Aquiline full ownership of the Navidad property.

From October 2006, Aquiline undertook diamond drilling, geophysical and geochemical exploration, metallurgical test work, resource estimates, and a preliminary economic assessment for Loma de La Plata.

On October 14, 2009, we announced a friendly offer to acquire all of the issued and outstanding shares of Aquiline. On December 7, 2009, we acquired approximately 85% of the issued and outstanding shares of Aquiline and extended our bid to December 22, 2009, and on that later date, we took up approximately an additional 7% of the issued and outstanding shares in the capital of Aquiline. Since the offer to acquire the Aquiline shares was accepted by holders of more than 90% of the Aquiline shares, on December 23, 2009, we provided notice to the remaining shareholders of our intention to exercise our right to acquire the remaining issued and outstanding Aquiline shares pursuant to the compulsory acquisition provisions of the Business Corporation Act (Ontario). Pursuant to the compulsory acquisition, we acquired the balance of the Aquiline shares on or about January 22, 2010.

Early in 2010, we took possession of the Navidad property. We continued with a drilling campaign, metallurgical testing, hydrologic analysis, environmental studies, and several other works on the Navidad property site during 2011. A preliminary economic assessment of the Navidad property deposits was completed in January 2011. Metallurgical testing and crushing and grinding test work continued.

Geological Setting, Mineralization, and Deposit Types

The Navidad project is located on the southwest edge of the Northern Patagonia Massif in southern Argentina. This boundary of the massif is coincident with the Gastre Fault System, one of a series of northwest to southeast trending half grabens and tectonic basins. Granitoid rocks of the basement in the northern part of the Province of Chubut belong to the Mamil Choique and Lipetren formations. At Navidad the sequence consists of ignimbrites, volcanic agglomerates, and lavas of the Lonco Trapial Formation and sandstones, mudstones, and limestones of the Cañadón Asfalto Formation. The latter of these formations hosts the Navidad mineralization.

The basin includes, and is defined by, three northwest-striking major fault zones, generally referred to as 'trends'. These comprise the Argenta, Esperanza, and Navidad trends. The Navidad Trend, which includes the bulk of the silver mineralization, occurs in the immediate hanging wall of a major northeast-striking fault known as the Sauzal Fault. Most of the economic mineralization is hosted by the upper of two trachytic andesite lava flows referred to as latite.

To date, the Navidad property comprises eight individual epithermal mineral deposits in the Navidad, Esperanza, and Argenta trends. The six deposits of the Navidad Trend occur along strike over a distance of about 5.8 kilometres and are essentially continuous. They comprise, from northwest to southeast: Calcite NW, Calcite Hill, Navidad Hill, Connector Zone, Galena Hill, and Barite Hill. The Valle Esperanza deposit occurs on the east flank of the Esperanza Trend and is found approximately 400 metres south-southwest of Galena Hill. The Loma de La Plata deposit occurs in the north part of the Argenta Trend, approximately 2.2 kilometres southwest from Calcite Hill.

Ore minerals include native silver, clots of black sulphide comprising argentite/acanthite, discrete grains of sphalerite, galena, chalcopyrite, cuprite, bornite, native copper, and copper carbonates (malachite, azurite). Similar styles of mineralization and a similar paragenesis occur in most of the deposits. However, the proportion of sulphides varies considerably. Loma de La Plata is silver-rich, but is sulphide-poor and contains very low levels of lead, zinc, and copper. Various pulses of mineralization are observed, principally at Galena Hill.

The principal metal association is Ag-Pb. Other associations include Ag-Pb-Cu and Cu-Ag and, more rarely, Ag-Zn. Occasionally there is Ag only, or Cu-Pb-Zn or simply isolated occurrences of these base metals. Gold appears to be totally absent from the system.

Exploration

The first exploration on the Navidad property area consisted of a preliminary regional geochemical sampling program conducted by Normandy in mid-2000. The program consisted of 1,200 BLEG stream sediment samples taken from drainage systems overlying volcanic rocks in the Province of Chubut in the general vicinity of Calcatreu, Mina Angela, Gastre, Lagunita Salada, Gan Gan, and other areas. This program resulted in the identification of various anomalies, including the Flamingo Prospect and the Navidad project.

IMA commenced initial detailed outcrop mapping of the Navidad project along the Navidad Trend in 2003 and expanded the mapping in 2004 to cover a wider portion of the mineral tenement at larger scales. Commencing in 2002 and continuing through 2006, IMA collected soil, rock chip and stream silt samples over the Navidad project. Collectively the anomalous rock chip samples clearly delineate the Navidad, Esperanza and Argenta trends, as does the soil geochemistry. Between 2003 and 2006, IMA completed 367 drillholes on the property.

Between October 2006 and June 2009, Aquiline focused exploration efforts on identifying new exploration targets with diamond drilling, with delineation and infill drilling at the Loma de La Plata deposit, and with minor infill drilling of the other previously identified mineralized zones. Exploration for additional deposits through the use of fence drilling across prospective covered areas was also undertaken. Geological mapping and geophysical and geochemical exploration also progressed to provide data for structural interpretation. Prior to our acquisition of the property, 950 drillholes had been drilled on the property.

We continued exploration drilling on several open or new targets along the mineralized trends as well as infill drilling at Loma de La Plata, Valle Esperanza, Barite Hill, Calcite Hill, Calcite NW, the Connector Zone, and Galena Hill during 2010 and 2011, completing approximately 129,500 metres of diamond drillholes. These infill drillholes also provided new samples for metallurgical analysis. In addition, condemnation and geotechnical drilling was conducted in the various planned facility areas during 2010.

All exploration work on the project has been undertaken by employees of IMA, Aquiline, or MASA, or by contractors under the supervision of these employees.

All of the samples collected during surface exploration have been used to guide the location of diamond drillholes. There are no known sample recovery, contamination, or bias issues that could have a material impact on the reliability of the sample results. The results of the drillhole samples are used for the estimation of mineral resources and mineral reserves.

Drilling

All diamond drilling on the Navidad property undertaken by all operators since the first drillhole in November 2003 has been completed by Boart Longyear Connors Argentina S.A. of Mendoza, Argentina, which was subsequently taken over by Boart Longyear in 2007. Nearly all holes have been drilled at HQ3 diameter with 3 metre long rods, except for rare instances where the drillhole was collared at HQ size diameter and subsequently reduced to NQ diameter down the drillhole and where larger diameter PQ holes were drilled to collect metallurgical samples. Approximately 320,000 metres of drilling have been completed on the Navidad property, mostly on 25 metre centres across the eight deposits. The results of these drilling campaigns are used to estimate mineral resources at Navidad.

Sampling, Analysis, and Data Verification

Sample intervals vary from between 1 metre and 3 metres long. There are no known drilling, sampling, or drill core recovery factors that could materially impact the accuracy and reliability of the results and the data is considered suitable for use in mineral resource estimates. Drill core logging, cutting, sampling, and sample

preparation and analytical techniques at the Navidad project follow industry practices. There are no known issues with sample quality, and the samples are believed to be representative and free from sample biases.

Sample security is a low risk considering the remote nature of the project and the core storage facilities. There is no reason to believe that the validity and integrity of the samples have been compromised.

All diamond drill core samples at the Navidad property have been analysed by Alex Stewart Assayers Argentina S.A. of Mendoza, Argentina, and have been analysed by fire assay for silver with gravimetric finish and gold for AAS finish and ICP-ES for 19 elements using the ICP ORE technique. The QAQC protocol employed by Alex Stewart consisted in batches of 50 samples for fire assay and up to 100 samples for ICP. Fire assay batches included one preparation blank, one analytical blank, one coarse duplicate, four pulp duplicates, one international certified standard for base metal and silver, one uncertified in-house standard, and two standards made from pure silver to calibrate losses in cupellation. ICP batches included two blanks, four standards, and 10% duplicates.

Certified standards, blanks, and field duplicates were routinely inserted by the project geologist with sample submissions as part of the project sample assay QAQC program. Analysis of the QAQC samples submitted with the geological samples used to estimate mineral resources at Navidad indicates that there is no significant source of bias, cross contamination, or inaccuracy.

Mineral Processing and Metallurgical Testing

Extensive metallurgical testing has taken place on the Navidad mineralization, including mineralogical studies, flotation and recovery testwork, grinding testwork, and variability testwork. The results indicate that the material responds well to flotation with acceptable recoveries and concentrate grades. The expected metallurgical performance for the Navidad ores was determined by laboratory bench-scale flotation test methods and a pilot plant test on one ore type. There are two distinct ore types found in the Navidad Mineral Resources that have been defined as copper-silver ores and lead-silver ores. The metal recoveries and the concentrate tonnage for both the silver-copper ore and the lead-silver ore vary by the degree of oxidation, lithology, and grade. Recovery algorithms have been constructed for each ore type using an analysis of the laboratory and pilot test results. The algorithms are recorded to each Mineral Resource block to project recoveries by ore type, oxidation state, lithology, and grade. Average recoveries of 77.8% for silver, 51.9% for copper, and 56.6% for lead were estimated for the silver-copper ores and average recoveries of 33.6% for silver, 32.6% for copper, and 76.6% for lead were estimated for silver-lead ores.

Mineral Resource Estimates

Management estimates that mineral resources at the Navidad property, as at April, 2009, are as follows:

Navidad Mineral Resource [1, 2]				
Resource Category	**Tonnes (Mt)**	**Grams of Silver per tonne**	**% Lead**	**% Copper**
Measured	15.4	137	1.44	0.10
Indicated	139.8	126	0.79	0.04
Inferred	45.9	81	0.57	0.02

Notes:

1 Estimated and reported above a 50 g/t AgEQ using a silver equivalence formula of AgEQ = Ag + (Pb × 10,000/365) and a price of $12.52 per ounce of silver and $1,100 per tonne of lead. The most likely cut-off grade for these deposits is not known at this time and must be confirmed by the appropriate economic studies. The estimated metal content does not include any consideration of mining, mineral processing, or metallurgical recoveries.

2 Mineral resource estimates for Navidad were prepared by Pamela De Mark, P. Geo., as a Qualified Person as that term is defined in NI 43-101.

Mineral resource estimates were prepared as of April 2009 using industry standard mining software. Geological interpretations and modelling of lithological and mineralization domains was completed based on the

information on the drillhole logs. A three dimensional block model was prepared and bulk density values were applied to the blocks according to the mean of bulk density measurements. Silver and lead grades were estimated into the blocks using multiple indicator kriging and copper grades were estimated using ordinary kriging. The mineral resources were classified for confidence categories with respect to the confidence in the data and the interpretation, and the drillhole density. Mineral resources were reported above a cut-off grade of 50 grams per tonne silver equivalent, using metal prices of $12.52 per ounce of silver and $1,100 per tonne of lead.

Mineral resource estimates are based on a number of assumptions that include metallurgical, taxation, and economic parameters. Increasing costs or increasing taxation could have a negative impact on the estimation of mineral reserves. Aside from the previously mentioned factors, there are currently no other known factors that may have a material negative impact on the estimate of mineral resources at Navidad.

Mining Operations

A preliminary economic assessment completed in 2011 anticipated a daily production rate of 15,000 tpd from open pit mines at the eight deposits using shovels and 150 tonne trucks. The mine schedule, based on the current mineral resources, was anticipated to last nearly 15 years after a pre-production and construction period with an additional 18 months of re-handling ore from a low grade stockpile for plant feed after mining is completed.

Processing and Recovery Operations

The process plant was anticipated to consist of a gyratory crusher, stockpile, and a 15,000 tonne per day capacity semi-autogenous/ball mill with flotation and filtration, producing a copper silver concentrate and a lead silver concentrate. We had no contracts in place for the sale of the concentrates at the time of the assessment.

Infrastructure, Permitting, and Compliance Activities

The planned mine workings, processing plant, tailings and waste disposal areas, effluent management and treatment facilities, roads, and power and water lines are expected to be located within the boundaries of the mining leases and surface rights controlled by us. To the best of our knowledge, all permits and licenses required to conduct our activities on the project have been obtained and are currently in good standing. Electrical power is provided by several small generators. We are authorized to use water from several bore holes for camp use and diamond drilling.

Drilling at the Navidad property requires a separate permit for each affected tenement valid for one year, subject to the submission of an EIS update within a one year period from the date of granting each successive permit. An updated EIS is required to cover the exploration activities, environmental impacts, and mitigation/monitoring actions implemented in the period following the last permit. The level of the exploration activity dictates the level of study required.

Environmental and social baseline studies have been completed for the Navidad property. The most recent EIS update was submitted in 2011 and is currently under administrative review by the Chubut Ministry for the Environment and Control of Sustainable Development. This drilling permit in connection with the EIS would allow for the operation of up to eight drill rigs, however no drilling is planned in the immediate future. Rehabilitation of the drilling platforms and impacted areas is carried out continuously, and we maintain an extensive environmental management and monitoring program on site.

Water rights are treated separately from environmental permits. Two extraction wells have been permitted for use in exploration activities.

Currently, Chubut's Law 5001 prohibits open pit mining and the use of cyanide in mineral processing in the entire province. Law 5001 banning open pit mining methods would need to be changed before permits for the development of Navidad can be obtained.

A closure cost estimate for Navidad was prepared according to State of Nevada approved SRCE methodology in 2011 and is updated every year. We have estimated the present value of reclamation costs for the Navidad development property to be approximately $0.3 million at December 31, 2015. Minera Argenta holds environmental reclamation insurance for the Navidad property in accordance with Argentinean law. See "Narrative Description of the Business – Environmental Protection" for further disclosure regarding forward-looking information related to reclamation costs.

Capital and Operating Costs

In 2015, $6.8 million was spent on activities at Navidad, while in 2014, $4.4 million was spent. Over the past year, the Navidad project budget assumed that the law in the Province of Chubut would not be amended in a manner which encouraged further investment at this stage and hence, our activities at Navidad were guided by an investment plan which focussed primarily on satisfying the legal requirements necessary to maintain our property interests under the current mining law. We plan to continue with such maintenance requirements. All expenditures will be expensed as incurred.

Exploration, Development, and Production

We plan to continue with our maintenance requirements, and have no plans to undertake any exploration drilling in 2016. All expenditures will be expensed as incurred.

III. Non-Material Properties and Interests

Other Operations, Exploration, Resource and Investment Properties

We gained ownership of several exploration projects in connection with the acquisition of Minefinders in 2012, including the La Virginia and La Bolsa projects in Mexico. Pan American is considering opportunities with respect to these projects, but they are not material properties for the purposes of NI 51-102 or NI 43-101.

We also own interests in other investment and resource properties in each of the jurisdictions in which we operate, including the Pico Machay project in Peru and the Calcatreu project in Argentina, as well as the Waterloo property and the Hog Heaven property in the United States, and certain other interests in Canada. Pan American does not consider these investment and resource properties to be material properties for the purposes of NI 51-102 or NI 43-101.

Mineral Property Expenditures

The following table sets out our acquisition, exploration and development expenditures (rounded, in thousands) for the periods indicated:

			2015		2014		2013
Acquisition		$	Nil	$	Nil	$	Nil
Development	Huaron	$	13,610	$	17,327	$	15,474
	Morococha		7,713		10,199		18,652
	Alamo Dorado		-		293		7,621
	Dolores		53,117		44,886		86,641
	La Colorada		58,037		31,400		13,574
	Manantial Espejo		14,061		26,741		12,002
	Navidad		-		-		246
	San Vicente		3,286		3,415		8,165
	Other		401		730		357
	TOTAL[1]	$	150,225	$	134,991	$	162,732
Exploration	Huaron	$	765	$	1,312	$	936
	Morococha		1,202		1,453		1,722
	Alamo Dorado		-		336		1,297
	Dolores		544		1,602		3,856
	La Colorada		254		9		225
	Manantial Espejo		-		1,657		608
	Navidad		7,057		4,437		2,515
	San Vicente		-		-		-
	La Preciosa		-		-		-
	Other[2]		208		2,419		4,316
	TOTAL[1]	$	11,940	$	13,225	$	15,475

Notes:

1 Numbers may not add due to rounding.

2 Includes spending on the early stage La Virginia, La Bolsa and Waterloo projects as well as other indirect exploration spending.

Metals Trading

We take the view that our precious metals production should not be hedged, thereby allowing the maximum exposure to precious metal prices. However, in times of extreme price volatility or deteriorating market conditions, the Board of Directors may make exceptions to this approach and authorize management to enter short-duration hedging for a limited portion of our forecasted production of precious metals in order to protect our margins at its higher cost operations.

During 2013, we hedged approximately 25% of our silver and gold production, contracting for the sale of 5.3 million ounces of silver and 24,000 ounces of gold. On September 10, 2013, we decided to accelerate the closing out of its outstanding silver and gold hedges after a re-evaluation of the financial risk of further price declines. The total realized loss recognized from closing our silver and gold hedges in 2013 was $5.1 million. As at December 31, 2014, there were no outstanding positions under this program.

We have engaged in forward sales of base metals production from our mines over the past several years. The forward sales of base metals in 2013, 2014 and 2015 were as follows:

- During 2015, we settled 4,080 tonnes of copper in forward sales at an average price of approximately $6,044 per tonne. We realized a gain of approximately $3.0 million from the settlement of the copper contracts during 2015.
- There were no forward sales in 2014.
- During 2013, we settled 10,000 tonnes of zinc in forward sales at an average price of approximately $1,990 per tonne, and 600 tonnes of lead forward sales at an average price of approximately $2,050 per tonne. We realized a gain of approximately $1.1 million from the settlement of zinc and lead contracts during 2013.

Please see the discussion below under "Risks Related to Our Business – Trading Activities and Credit Risk".

RISKS RELATED TO OUR BUSINESS

We face a number of risks in our business. Several of them can have a material adverse effect on our operations and on the value of our securities, and we discuss them in this next section.

Metal Price Fluctuations

The majority of our revenue is derived from the sale of silver, zinc, gold, and, to a lesser degree, copper and lead, and therefore fluctuations in the price of these commodities represents one of the most significant factors affecting our operations and profitability. In addition, since base metal and gold sales are treated as a by-product credit for the purposes of calculating cash costs per ounce of silver, this non-IFRS measure is highly sensitive to base metal and gold prices. From time to time, we mitigate the risk associated with our base metal production by committing some of our forecast base metal production to forward sales and options contracts. However, decisions relating to hedging may have material adverse effects on our financial performance, financial position, and results of operations. The Board of Directors continually assesses Pan American's strategy towards our base metal exposure, depending on market conditions.

The price of silver and other metals are affected by numerous factors beyond our control, including:

- global and regional levels of supply and demand;
- sales by government holders and other third parties;
- 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, demand and costs of metal substitutes;
- international economic and political conditions;
- interest rates, inflation and currency values; and
- reduced demand resulting from obsolescence of technologies and processes utilizing silver.

A decrease in the market price of silver, gold and other metals could affect the commercial viability of our mines and our production assumptions. Lower prices could also adversely affect our ability to finance future exploration and development of our mineral properties and mines, including the development of capital intensive projects such as Navidad, all of which would have a material adverse effect on our financial condition, results of operations and future prospects. There can be no assurance that the market prices will remain at current levels or that such prices will improve. Declining market prices for these metals could materially adversely affect our operations and profitability.

If market prices of gold and silver remain below levels used in Pan American's impairment testing and reserve prices, for an extended period of time, Pan American may need to reassess its long-term price

assumptions, and a significant decrease in the long-term price assumptions would be an indicator of potential impairment, requiring Pan American to perform an impairment assessment on related assets. Pan American further discusses key assumptions used in measuring the recoverable amounts of its mining assets and sensitivity of the recoverable amounts to metal prices as well as operating costs in Note 11 of Pan American's Audited Consolidated Financial Statements for the year ended December 31, 2015. Due to the sensitivity of the recoverable amounts to long term metal prices as well as unforeseen factors including changes to mine plans and cost escalations, any significant change in the key assumptions and inputs could result in impairment charges in future periods.

Foreign Operations

All of our current production and revenue are derived from our operations in Peru, Mexico, Argentina and Bolivia. As our business is carried on in a number of developing countries, it is exposed to a number of risks and uncertainties, including:

- expropriation or nationalization without adequate compensation, particularly in jurisdictions such as Argentina and Bolivia which have a history of expropriation;
- changing political and fiscal regimes, and economic and regulatory instability;
- unanticipated changes to royalty and tax regulations;
- unreliable or undeveloped infrastructure;
- labour unrest and labour scarcity;
- difficulty obtaining key equipment and components for equipment;
- regulations and restrictions with respect to imports and exports;
- high rates of inflation;
- extreme fluctuations in currency exchange rates and the imposition of currency controls;
- the possible unilateral cancellation or forced re-negotiation of contracts, and uncertainty regarding enforceability of contractual rights;
- inability to obtain fair dispute resolution or judicial determinations because of bias, corruption or abuse of power;
- difficulties enforcing judgments obtained in Canadian or United States courts against assets located outside of those jurisdictions;
- difficulty understanding and complying with the regulatory and legal framework respecting the ownership and maintenance of mineral properties, mines and mining operations, and with respect to permitting;
- local opposition to mine development projects, which include the potential for violence and property damage;
- violence and more prevalent or stronger organized crime groups;
- terrorism and hostage taking;
- military repression and increased likelihood of international conflicts or aggression; and
- increased public health concerns.

Certain of these risks and uncertainties are illustrated well by circumstances in Bolivia and Argentina.

In early 2009, a new constitution was enacted in Bolivia that further entrenched the government's ability to amend or enact laws, including those that may affect mining, and which enshrined the concept that all natural resources belong to the Bolivian people and that the state was entrusted with its administration. On May 28, 2014, the Bolivian government enacted the New Mining Law. Among other things, the New Mining Law established a new Bolivian mining authority to provide principal mining oversight (varying the role of COMIBOL) and set out a number of new economic and operational requirements relating to state participation in mining projects. Further, the New Mining Law provided that all pre-existing contracts were to migrate to one of several new forms of agreement within a prescribed period of time. As a result, we anticipate that our current joint venture agreement

with COMIBOL relating to the San Vicente mine will be subject to migration to a new form of agreement and may require renegotiation of some terms in order to conform to the New Mining Law requirements. We are assessing the potential impacts of the New Mining Law on our business and are awaiting further regulatory developments, but the primary effects on the San Vicente operation and our interest therein will not be known until such time as we have, if required to do so, renegotiated the existing contract, and the full impact may only be realized over time. In the meantime, we understand that pre-existing agreements will be respected during the period of migration and we will take appropriate steps to protect and, if necessary, enforce our rights under our existing agreement with COMIBOL. There is, however, no guarantee that governmental actions, including possible expropriation or additional changes in the law, and the migration of our contract will not impact our involvement in the San Vicente operation in an adverse way and such actions could have a material adverse effect on us and our business.

On June 25, 2015, the Bolivian government further enacted the New Conciliation and Arbitration Law, which endeavors to set out newly prescribed arbitral norms and procedures, including for foreign investors. However, whether the New Conciliation and Arbitration Law applies specifically to pre-existing agreements between foreign investors and COMIBOL, and how this new legislation interacts with the New Mining Law, remains somewhat unclear. As a result, we await clarification by regulatory authorities and will continue to assess the potential impacts of the New Conciliation and Arbitration Law on our business.

Meanwhile, under the previous political regime in Argentina, the government intensified the use of price, foreign exchange, and import controls in response to unfavourable domestic economic trends. Among other things, the Argentine government imposed restrictions on the importation of goods and services and increased administrative procedures required to import equipment, materials and services, including those required for operations at Manantial Espejo. In support of this policy, in May 2012, the government mandated that mining companies establish an internal function to be responsible for substituting Argentinian-produced goods and materials for imported goods and materials and required advanced government review of plans to import goods and materials. In addition, the government of Argentina also tightened control over capital flows and foreign exchange in an attempt to curtail the outflow of hard currencies and protect its foreign currency reserves, including mandatory repatriation and conversion of foreign currency funds in certain circumstances, informal restrictions on dividend, interest, and service payments abroad and limitations on the ability of individuals and businesses to convert ARS into United States dollars or other hard currencies, exposing us to additional risks of ARS devaluation and high domestic inflation. While a new federal government was elected in Argentina in late 2015 and has since taken steps to ease some of the previously instituted controls and restrictions, particularly relaxing certain rules relating to the inflow and outflow of foreign currencies, many of the policies of the previous government continue to adversely affect the Company's Argentine operations. It is unknown whether these recent changes will be lasting, what, if any, additional steps will be taken by the new administration or what financial and operational impacts these and any future changes might have on the Company. As such, the Company continues to monitor and assess the situation in Argentina.

In most cases, the effect of these risks and uncertainties cannot be accurately predicted and, in many cases, their occurrence is outside of our control. Although we are unable to determine the impact of these risks on our future financial position or results of operations, many of these risks and uncertainties have the potential to substantially affect our exploration, development and production activities and could therefore have a material adverse impact on our operations and profitability.

Restrictions on Mining

Many of the jurisdictions in which we operate have certain laws or policies that impose restrictions on mining. For example, there are currently laws in the Province of Chubut, Argentina, which, among other things, prohibit open pit mining and the use of cyanide in mineral processing across the entire Province. On December 5, 2014, a new law came into force in Chubut which suspended the start of all metalliferous mining activity in the Province for a period of 120 days and established that mining projects must obtain social license through a public consultation process and binding referendum prior to any mining exploitation activity beginning. This law was abrogated in January 2016 and is no longer in effect. As currently enacted, the laws in the Province of Chubut

would likely render any future construction and development of the Navidad property uneconomic or not possible at all.

There is no guarantee that the present restrictions on mining will be removed or that they will not become more restrictive, or that new constraints will not be imposed. Such restrictions, particularly those affecting the development of the Navidad property, could have a material adverse effect on our future profitability, growth, and value.

Governmental Regulation

In addition to restrictions on mining, our operations, exploration, and development activities are subject to extensive Canadian, United States, Peruvian, Mexican, Argentinean, Bolivian, and other foreign federal, state, provincial, territorial, and local laws and regulations governing various matters, including:

- environmental protection;
- permitting;
- management and use of toxic substances and explosives;
- management of natural resources;
- exploration, development, production, and post-closure reclamation of mines;
- imports and exports;
- transportation;
- price controls;
- taxation;
- mining royalties;
- labour standards, employee profit-sharing and occupational health and safety, including mine safety; and
- historic and cultural preservation.

The costs associated with compliance with these laws and regulations can be substantial, and future laws and regulations, changes to existing laws and regulations (including the imposition of higher taxes and mining royalties which have been implemented or threatened in the countries in which we do business) or more stringent enforcement of current laws and regulations by governmental authorities, could cause additional expense, capital expenditures, restrictions on or suspensions of our operations and delays in the development of our properties. Moreover, these laws and regulations may allow or encourage 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, or possibly even those actions of parties from whom we acquired our mines or properties, and could lead to the imposition of substantial fines, penalties, or other civil or criminal sanctions. It is difficult understanding and complying with the regulatory and legal framework in some jurisdictions in which we operate due to their arcane, inconsistent, and sometimes unsophisticated nature. We may inadvertently fail to comply with such laws. This non-compliance can lead to financial restatements, fines, penalties, loss, reduction or expropriation of entitlements, the imposition of additional local or foreign parties as joint venture partners with carried or other interests, and other material negative impacts on us. We may also be required to compensate private parties suffering loss or damage by reason of a breach of any such laws, regulations or permitting requirements. We may also be subject to abuse of power of foreign governments who impose, or threaten to impose, fines, penalties or other similar mechanisms, without regard to the rule of law and which could result in financial or other losses, reduction, removal or expropriation of rights or entitlements, or other negative impacts on us, some of which could be material.

In December 2012, the government of Mexico introduced changes to the federal labour law which, among other things, made certain amendments to the law relating to the use of service companies and subcontractors, and the obligations with respect to employee benefits. In some cases, these amendments may also have a carry-over effect on the distribution of profits to workers and this could result in additional, and potentially significant,

financial obligations for a business. We believe that we continue to be in compliance with the federal labour law and that these amendments will not result in any new material obligations for us.

Taxation and royalties with respect to mining are often subject to change and in many resource rich countries, are vulnerable to increases in both poor and good economic climates. For example, in late 2013, the Mexican government enacted significant changes to its tax laws that took effect on January 1, 2014, which included the SMD and the EMD. Similarly, in September 2013, the provincial government of Santa Cruz, Argentina, passed amendments to its tax code that introduced a new mining property tax with a rate of 1% to be charged on published reserves. This tax had the potential to significantly affect the Manantial Espejo mine as well as other companies operating in the Province and we therefore took steps to challenge its legality and constitutionality. In December 2015, the legislature of the Province of Santa Cruz passed a bill abrogating this mining property tax and the bill became law and was published in the Official Gazette on December 30, 2015, as Law 3,462. Law 3,462 was promulgated through a decree that confirmed that the tax was unconstitutional because: (i) it contravened the contents of Federal Mining Investments Law, and (ii) it attempted to regulate matters reserved to Federal legislation. We currently do not expect subject taxes already paid to be refunded or credited. The addition of new taxes, specifically those aimed at mining companies, could have a material impact on our operations and will directly affect profitability and our financial results.

Obtaining and Renewing of Permits

In the ordinary course of business, we are required to obtain and renew governmental permits for the operation and expansion of existing operations or for the development, construction, and 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 our part. The duration and success of our efforts to obtain and renew permits are contingent upon many variables not within our control including the interpretation of applicable requirements implemented by the permitting authority. We may not be able to obtain or renew permits that are necessary to our operations, or the cost to obtain or renew permits may exceed what we believe we can recover from a given property once in production. Any unexpected delays, failure to obtain such permits, a failure to comply with the terms of the permit or costs associated with the permitting process could delay the development or impede the operation of a mine, which could adversely impact our operations and profitability.

Ownership and Operating Hazards and Risks

The ownership, 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 and health hazards;
- industrial and equipment accidents, explosions and third party accidents;
- the encountering of unusual or unexpected geological formations;
- ground falls and cave-ins;
- flooding;
- labour disruptions;
- mechanical equipment, machinery, and facility performance problems;
- earthquakes; and
- periodic interruptions due to inclement or hazardous weather conditions.

These risks could result in:

- environmental damage and liabilities;
- work stoppages, delayed production, and resultant losses;

- increased production costs;
- damage to, or destruction of, mineral properties or production facilities and resultant losses;
- personal injury or death and resultant losses;
- asset write downs;
- abandonment of assets;
- monetary losses;
- claims for compensation of loss of life and/or damages by third parties in connection with accidents (for loss of life and/or damages and related pain and suffering) that occur on our property, and punitive awards in connection with those claims; and
- other liabilities.

These risks could result in damage to, or destruction of, mineral properties, production facilities and other properties, personal injury, environmental damage, delays in mining, increased production costs, monetary losses, and possible legal liability. Advancements in science and technology and in mine design, methods, equipment, and training have created the possibility of reducing some of these risks, but there can be no assurances that such occurrences will not take place and that they will not negatively impact us, our operations, and our personnel.

In addition to those other risks identified above, mining operations are also subject to ownership and operating risks relating to the valuable nature of the product being produced. Our Mexican operations have both suffered from armed robberies of doré within the past three years. We have instituted a number of additional security measures and a more frequent shipping schedule in response to these incidents. We have subsequently renewed our insurance policy to mitigate some of the financial loss that would result from such criminal activities in the future, however a substantial deductible amount would apply to any such losses in Mexico.

Liabilities that we incur may exceed the policy limits of our insurance coverage or may not be insurable, in which case we could incur significant costs that could adversely impact our business, operations, profitability, or value.

Exploration and Development Risks

The long-term operation of our business and its profitability is dependent, in part, on the cost and success of our exploration and development programs. Mineral exploration and development involves a high degree of risk and few properties that are explored are ultimately developed into producing mines. There is no assurance that our mineral exploration and development programs will result in any discoveries of economic quantities of mineralization. There is also no assurance that even if economic quantities of mineralization are discovered that a mineral property will be brought into commercial production. Development of our 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 development and production, importing and exporting of minerals and environmental protection. Most of the above factors are beyond our control. As a result, there can be no assurance that our acquisition, exploration, and development programs will yield new mineral reserves to replace or expand current mineral reserves or that they will result in additional production. Unsuccessful exploration or development programs could have a material adverse effect on our operations and profitability.

Competition for New Properties

The mining industry is exceptionally competitive, particularly with respect to properties that produce, or are capable of producing, silver, gold, and other metals. Mines have limited lives and, as a result, Pan American continually seeks to replace and expand mineral reserves through the acquisition of new properties. In addition,

there is a limited supply of desirable mineral lands available in areas where we would consider conducting exploration and/or production activities. Because we face strong competition for new properties from other mining companies, some of which have greater financial resources than we do, we may be unable to acquire attractive new mining properties on terms that we consider acceptable. Competition for resources at all levels is intense, particularly affecting the availability of manpower, drill rigs, mining equipment, and production equipment. Competition in the mining business for limited sources of capital could adversely impact our ability to acquire and develop suitable silver mines, silver developmental projects, silver producing companies, or properties having significant exploration potential. As a result, there can be no assurance that our acquisition and exploration programs will yield new mineral reserves to replace or expand current mineral reserves.

Replacement of Reserves

The Huaron, Morococha, La Colorada, Dolores**,** Alamo Dorado, Manantial Espejo, and San Vicente mines are our current sources of metals production. Current life-of-mine plans provide for a defined production life for mining at each of our mines. If our mineral reserves are not replaced either by the development or discovery of additional reserves and/or extension of the life-of-mine at our current operating mines or through the acquisition or development of additional producing mines, this could have an adverse impact on our future cash flows, earnings, results of operations, and financial condition, and this may be compounded by requirements to expend funds for reclamation and decommissioning.

Imprecision in Mineral Reserve and Mineral Resource Estimates

There is a degree of uncertainty attributable to the estimation of mineral reserves and mineral resources. Until mineral reserves or mineral resources are actually mined and processed, the quantity and grade of mineral resources and mineral reserves must be considered as estimates only and no assurances can be given that the estimated levels of metals will be produced or that we will receive the price assumed in determining our mineral reserves. These estimates are expressions of judgment based on knowledge, mining experience, analysis of drilling results and industry practices. Valid estimates made at a given time may significantly change when new information becomes available. By their nature, mineral reserve and mineral resource estimates are imprecise and depend, to a certain extent, upon analysis of drilling results and interpretations that may ultimately prove unreliable.

Furthermore, fluctuations in the market price of metals, as well as increased capital or production costs or reduced recovery rates may render mineral reserves uneconomic and may ultimately result in a reduction of mineral reserves. The extent to which resources may ultimately be reclassified as proven or probable mineral reserves is dependent upon the demonstration of their profitable recovery. The evaluation of mineral reserves or mineral resources is always influenced by economic and technological factors, which may change over time. No assurances can be given that any resource estimate will ultimately be reclassified as proven or probable mineral reserves or that mineralization can be mined or processed profitably. If our mineral reserve or mineral resource figures are inaccurate or are reduced in the future, this could have an adverse impact on Pan American's future cash flows, earnings, results of operations, and financial condition.

Inaccuracies in Production and Cost Estimates

We prepare estimates of future production and future production costs for our operations. No assurance can be given that production and cost estimates will be achieved. These production and cost estimates are based on, among other things, the following factors: the accuracy of mineral reserve estimates; the accuracy of assumptions regarding ground conditions and physical characteristics of ores, such as hardness and the presence or absence of particular metallurgical characteristics; equipment and mechanical availability; labour availability and productivity; access to the mine; facilities and infrastructure; sufficient materials and supplies on hand; and the accuracy of estimated rates and costs of mining and processing, including the cost of human and physical resources required to carry out our activities. Failure to achieve production or cost estimates, or increases in costs, could have an adverse impact on our future cash flows, earnings, results of operations, and financial condition.

Actual production and costs may vary from estimates for a variety of reasons, including actual ore mined varying from estimates of grade, tonnage, dilution and metallurgical and other characteristics; short-term operating factors relating to the mineral reserves**,** such as the need for sequential development of orebodies and the processing of new or different ore grades; and risks and hazards associated with mining described above under "Ownership and Operating Hazards and Risks". 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, or that the existing known and experienced recoveries will continue. Costs of production may also be affected by a variety of factors, including: changing stripping ratios, ore grade metallurgy, labour costs and productivity, costs of supplies and services (such as, for example, fuel and power), general inflationary pressures, and currency exchange rates. Failure to achieve production estimates could have an adverse impact on our future cash flows, earnings, results of operations, and financial condition.

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 for capital and operating costs. The lack of availability on acceptable terms or the delay in the availability of any one or more of these items could prevent or delay exploitation or development of our projects. If adequate infrastructure is not available in a timely manner, there can be no assurance that the exploitation or development of our projects will be commenced or completed on a timely basis, if at all; the resulting operations will achieve the anticipated production volume, or the construction costs and ongoing operating costs associated with the exploitation and/or development of our advanced projects will not be higher than anticipated. In addition, unusual weather phenomena, sabotage, government, or other interference in the maintenance or provision of such infrastructure could adversely affect our operations and profitability.

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

Environmental Legislation, Regulations, and Hazards

All phases of our operations are subject to environmental regulation in the various jurisdictions in which we operate. Environmental legislation in almost all jurisdictions are 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. Compliance with environmental laws and regulations may require significant capital outlays on our behalf and may cause material changes or delays in our intended activities. Changes in environmental regulation, if any, may adversely impact our operations and profitability. In addition, environmental hazards may exist on our properties which are currently unknown to us. We 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 by natural conditions. The costs of such cleanup actions may have a material adverse effect on our operations and profitability.

Our operations at Dolores involve heap leaching and this method of mineral processing may be employed in the future at other mines and projects. Heap leaching often employs sodium cyanide, a hazardous material, to leach metal-bearing ore and then collect the resulting metal-bearing solution. There is an inherent risk of unintended discharge of hazardous materials in the operation of leach pads. Should sodium cyanide escape from a leach pad and collection infrastructure or otherwise be detected in the downstream surface and ground water points, we could become subject to liability for remediation costs, which could be significant and may not be insured against. In addition, metal production could be delayed or halted to prevent further discharges and to allow for remediation. Such delays or cessations in production could be long-term or, in some cases, permanent and any interference with production could result in a significant reduction in, or loss of, cash flow and value for

us. While appropriate steps may be taken to prevent discharges of sodium cyanide and other hazardous materials into the ground water, surface water, and the downstream environment, there is inherent risk in the operation of leach pads and there can be no assurance that a release of hazardous materials would not occur.

We operate seven tailings storage facilities in total at all our mines except Dolores. In 2013 and 2014 we conducted detailed internal safety reviews of all seven tailings storage facilities. Those reviews, completed in August and September 2014, found that the storage facilities design, construction, operation and monitoring at all of our tailings storage facilities are generally in line with the Canadian Dam Safety Guidelines and best practice. Additionally, an independent safety review for the Huaron tailings storage facilities was commissioned to Newfields consultants of Denver, Colorado. The review concurred with the previously completed internal review. Design of all of our tailings storage facilities includes detailed consideration of stability under static and dynamic (pseudostatic) seismic conditions to ensure exceedance of relevant safety factors. While we believe that appropriate steps have been taken to prevent safety incidents, there are inherent risks involved with tailings facilities, including among other things, seismic activity, particularly in seismically active regions such as Peru, and the ability of field investigations completed prior to construction to detect weak foundation materials. There can be no assurance that a dam or other tailings facility safety incident will not occur and such an incident could have a material adverse effect on our operations and profitability.

Responsibility for the operation of a water treatment plant for the Kingsmill Tunnel and the tailings mitigation program at Huascacocha Lake, near the Morococha mine, have been apportioned by Water Management Consultants Inc. in environmental studies among the Morococha mine and the mining companies operating neighbouring projects. The continued development of the Toromocho project by MCP may alleviate some of our funding requirements. There can be no guarantee, however, that our proportionate share of the costs of such environmental projects will not change and this may affect cash flow from the Morococha mine operations.

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 mining exploitation and exploration disturbance by requiring the operating company to control possible deleterious effluents and to re-establish to some degree pre-disturbance land forms and vegetation. We are actively providing for or carrying out any required reclamation activities on our properties. Any significant environmental issues that may arise, however, could lead to increased reclamation expenditures and have a material adverse effect on our financial resources.

Trading Activities and Credit Risk

We generally take the view that our precious metals production should not be hedged, thereby allowing the maximum exposure to precious metal prices. However, in times of extreme price volatility or deteriorating market conditions, the Board of Directors may make exceptions to this approach and authorize management to enter short-duration hedging for a limited portion of our forecasted production of precious metals. Decisions relating to hedging may have material adverse effects upon our financial performance, financial position, and results of operations.

The zinc, lead, and copper concentrates produced by us are sold through long-term supply arrangements to metal traders or integrated mining and smelting companies. The terms of the concentrate contracts may require us to deliver concentrate that has a value greater than the payment received at the time of delivery, thereby introducing us to credit risk of the buyers of our concentrates. Should any of these counterparties not honour supply arrangements, or should any of them become insolvent, we may incur losses for products already shipped and be forced to sell our concentrates in the spot market or we may not have a market for our concentrates and therefore our future operating results may be materially adversely impacted. For example, the Doe Run Peru smelter, a significant buyer of our production in Peru, experienced financial difficulties in the first quarter of 2009 and closed. We continued to sell copper concentrates to other buyers but on inferior terms. The Doe Run Peru

smelter remains closed and we are owed approximately $8.2 million under the terms of our contract with Doe Run Peru. We continue to pursue all legal and commercial avenues to collect the amount outstanding.

As at December 31, 2015, we had receivable balances associated with buyers of our concentrates of $21.3 million (2014 - $29.3 million). All of this receivable balance is owed by eight well known concentrate buyers and the vast majority of our concentrate is sold to those same counterparts.

Silver doré production is refined under long term agreements with fixed refining terms at three separate refineries worldwide. We generally retain the risk and title to the precious metals throughout the process of refining and therefore are exposed to the risk that the refineries will not be able to perform in accordance with the refining contract and that we may not be able to fully recover our precious metals in such circumstances. As at December 31, 2015, we had approximately $21.4 million contained in precious metal inventory at refineries (2014 - $44.7 million). We maintain insurance coverage against the loss of precious metals at our mine sites, in-transit to refineries, and while at the refineries.

Refined silver and gold is sold in the spot market to various bullion traders and banks. Credit risk may arise from these activities if we are not paid for metal at the time it is delivered, as required by spot sale contracts.

We maintain trading facilities with several banks and bullion dealers for the purposes of transacting our trading activities. None of these facilities are subject to margin arrangements. Our trading activities can expose us to the credit risk of our counterparties to the extent that our trading positions have a positive mark-to-market value.

Management constantly monitors and assesses the credit risk resulting from our concentrate sales, refining arrangements, and commodity contracts. Furthermore, management carefully considers credit risk when allocating prospective sales and refining business to counterparties. In making allocation decisions, management attempts to avoid unacceptable concentration of credit risk to any single counterparty.

From time to time, we may invest in equity securities of other companies. Just as investing in Pan American is inherent with risks such as those set out in this AIF, by investing in other companies we will be exposed to the risks associated with owning equity securities and those risks inherent in the investee companies.

Competitive Conditions

The mining industry is intensely competitive, particularly in the acquisition of additional mineral reserves and mineral resources in all of its phases of operation, and we compete with many companies possessing similar or greater financial and technical resources. This is particularly true in jurisdictions where mining is a significant industry, and our operations fall within such jurisdictions.

Our competitive position is largely determined by our costs compared to other producers throughout the world and our ability to maintain our financial integrity through the lows of the metal price cycles. Costs are governed to a large extent by the location, grade, and nature of mineral reserves as well as by operating and management skills. In contrast with diversified mining companies, we focus on silver production, development, and exploration, and are therefore subject to unique competitive advantages and disadvantages related to the price of silver and to a lesser extent, the price of gold and base metal by-products. If silver prices substantially increase, we 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, we may be at a competitive disadvantage to diversified mining companies.

Economic Dependence

We have 20 customers that account for 100% of our concentrate and silver and gold sales revenue. We have seven customers that accounted for 25%, 14%, 11%, 10%, 9%, 8%, and 8% of total sales in 2015. The loss of

certain of these customers or curtailment of purchases by such customers could have a material adverse effect on our results of operations, financial condition, and cash flows.

Exchange Rate Risk

We report our financial statements in United States dollars ("USD"); however we operate in jurisdictions that utilize other currencies. As a consequence, the financial results of our operations, as reported in USD, are subject to changes in the value of the USD relative to local currencies. Since Pan American's sales are denominated in USD and a portion of our operating costs and capital spending are in local currencies, we are negatively impacted by strengthening local currencies relative to the USD and positively impacted by the inverse. The local currencies that we have the most exposure to are the PEN, the MXN, and the ARS.

In order to mitigate this exposure, we maintain a portion of our cash balances in PEN, MXN and CAD and, from time to time, enter into forward currency positions to match anticipated spending. As at December 31, 2015, we had collars on a portion of the Company's MXN purchases with puts and call contracts which have a nominal value of $36.2 million and have settlement dates between January 2016 and December 2016. The positions have a weighted average floor of $16.41 and average cap of $18.48. At December 31, 2015, we were holding cash and short term investments of $13.0 million in CAD and $9.2 million in MXN.

Our balance sheet contains various monetary assets and liabilities, some of which are denominated in foreign currencies. Accounting convention dictates that these balances are fair valued at the end of each period, with resulting adjustments being reflected as foreign exchange gains or losses on our statement of operations.

In addition to the foregoing, governmental restrictions and controls relating to exchange rates also impact our operations. In Argentina, for example, the government has at times established official exchanges rates that were significantly different than the unofficial exchange rates more readily utilized in the local economy to determine prices and value. Our investments in Argentina are primarily funded from outside of the country, and therefore conversion of foreign currencies, like USD, at the official exchange rate has had the effect of reducing purchasing power and substantially increasing relative costs in an already high inflationary market. Maintaining monetary assets in ARS also exposes us to the risks of ARS devaluation and high domestic inflation.

Liquidity Risk

Liquidity risk is the risk that we will not be able to meet our financial obligations as they come due. The volatility of the metals markets can impact our ability to forecast cash flow from operations.

We must maintain sufficient liquidity to meet our short-term business requirements, taking into account our anticipated cash flows from operations, our holdings of cash and cash equivalents, and committed loan facilities.

We manage our liquidity risk by continuously monitoring forecasted and actual cash flows. We have in place a rigorous reporting, planning and budgeting process to help determine the funds required to support our normal operating requirements on an ongoing basis and our expansion plans. We continually evaluate and review capital and operating expenditures in order to identify, decrease, and limit all non-essential expenditures.

Employee Recruitment, Retention and Human Error

Recruiting and retaining qualified personnel is critical to our success. We are dependent on the services of key executives including Pan American's President and Chief Executive Officer and other highly skilled and experienced executives and personnel focused on managing our interests. The number of persons skilled in acquisition, exploration, and development of mining properties is limited and competition for such persons is intense. As our business activity grows, we will require additional key financial, administrative, and mining personnel as well as additional operations staff. There can be no assurance that we will be successful in attracting, training, and retaining qualified personnel as competition for persons with these skill sets increases. If we are not

successful in attracting, training, and retaining qualified personnel, the efficiency of our operations could be impaired, which could have an adverse impact on Pan American's future cash flows, earnings, results of operations, and financial condition.

Despite efforts to attract and retain qualified personnel, as well as the retention of qualified consultants, to manage our interests, even when those efforts are successful, people are fallible and human error and mistakes could result in significant uninsured losses to us. These could include, but are not limited to, loss or forfeiture of mineral claims or other assets for non-payment of fees or taxes, erroneous or incomplete filings or non-fulfillment of other obligations, significant tax liabilities in connection with any tax planning effort we might undertake or mistakes in interpretation and implementation of tax laws and practices, and legal claims for errors or mistakes by our personnel.

Employee Relations

Some of our employees and contractors are unionized. In particular, unions have been established at our operations in Peru, Argentina, and Bolivia. Although we have reached agreements with our various unions and place significant emphasis on maintaining positive relationships with the unions and employees, we have experienced labour strikes and work stoppages in the past. Should they occur, some labour strikes and work stoppages have the potential to materially affect our operations and thereby adversely impact our future cash flows, earnings, production, and financial conditions.

Title to Assets

The validity of mining or exploration titles or claims or rights, which constitute most of our property holdings, can be uncertain and may be contested. 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. We operate in countries with developing mining laws and changes in such laws could materially impact our rights to our various properties or interests therein.

Although we have received title opinions for those material properties in which we have a material interest (or if we have not been able to obtain such opinions, have made a determination, which we believe is reasonable in the circumstances, to accept the risks associated with the subject property), there is no guarantee that title to such properties will not be challenged or impugned. We have not conducted surveys of all the claims in which we hold direct or indirect interests and therefore, the precise area and location of such claims may be in doubt. Our properties may be subject to prior unregistered liens, agreements or transfers, native land claims, or undetected title defects. Although we may update our title opinions from time to time in connection with corporate activities such as financings or acquisitions, we do not update all of our title opinions regularly. As such, circumstances and facts may change such that some or all of our previously obtained title opinions may be inaccurate or outdated.

As noted under "Risks Related to our Business – Foreign Operations", we are subject to expropriation risk in a number of countries in which we operate, most notably in Bolivia and Argentina. Both of these countries have recently seen expropriations or nationalizations in the resource industries and it is not an uncommon occurrence from a historical perspective. Expropriation, or the threat of expropriation, is often as a result of poor economic conditions within a country or has underlying political rationales. Foreign authorities have in some cases also taken the position that the lack of development or advancement of a project is a basis on which to expropriate or to extinguish property rights. Some of the jurisdictions in which we operate are subject to a number of these factors and therefore the risk is heightened. In particular, the economic and political environment in Argentina is such that the threat of expropriation in the mining industry is not unrealistic and, in connection with our Navidad project in particular, we may be at even greater risk of expropriation or extinguishment of rights given our current activity level at the project. Since there have been no amendments to the law that would permit open-pit mining in the Province of Chubut, our activities at Navidad have changed from rapidly advancing the project to instead developing and filing an investment plan focused primarily on satisfying the legal requirements necessary to

maintain our property interests under the current mining law. There is a further risk that if the federal or provincial governments in Argentina are dissatisfied with our activities at Navidad, this could also impact our operations at the Manantial Espejo mine. Expropriation, extinguishment of rights and any other such similar governmental actions would likely have a material adverse effect on our operations and profitability.

In many jurisdictions in which we operate, legal rights applicable to mining concessions are different and separate from legal rights applicable to surface lands; accordingly, title holders of mining concessions in many jurisdictions must agree with surface land owners on compensation in respect of mining activities conducted on such land. We have not held ownership title to most of the surface lands in the areas that overlie our mining concessions comprising the Morococha property, nor in the areas where administration and operations are taking place therein, but were used by us pursuant to a usufruct agreement. In May 2008, MCP acquired certain surface rights from Centromin (currently, Activos Mineros S.A.) covering the main Morococha area that had been reserved for the Toromocho project by the Government of Peru. In addition, MCP acquired rights including surface lands in the Morococha area where the Morococha mine administration and operations are taking place, as well as certain underground areas. Certain of the underground areas acquired by MCP would also provide us with easier and less costly underground access to some areas of the Morococha concessions.

Beginning in 2005, with the opposition of Centromin, we engaged in a number of administrative and judicial proceedings to obtain legal title to surface lands and underground access that comprise part of the rights that were acquired by Peru Copper from Centromin.

In June 2010, we reached an agreement with MCP which clearly defines each party's long term surface rights and therefore provides more certainty to the land situation for our Morococha mine. The primary focus of the agreement is on the lands and concessions around the Morococha mine and MCP's Toromocho copper project. Under the terms of the agreement, Argentum is required to relocate the core Morococha facilities over a 5 year period and transfer certain mineral concessions and access rights to MCP that it needs in order to proceed with the development of the Toromocho project, including the surface lands within the planned open pit mining area of the Toromocho project. In exchange, Argentum is to receive a package of surface rights, easements, and other rights to relocate the facilities and to continue uninterrupted operations, and would also obtain rights to a number of mineral concessions outside the planned Toromocho pit area where high-grade silver veins have been identified. Lastly, Argentum is to receive periodic cash payments from MCP totalling $40 million, which would off-set a portion of the capital required for the facility relocation. In addition to the foregoing, the parties agreed to dismiss the judicial and administrative claims between them. Pursuant to the agreement, the transfer of lands and rights and the cash payments will occur over a period of time and are dependent on meeting certain milestones. During the course of the agreement, however, certain adjustments have been made by the parties with respect to the timing of achieving milestones, in some cases informally, and additional adjustments will be required going forward. As of December 31, 2015, the Morococha facilities had not been relocated within the time period originally established in the agreement, and the parties had not yet agreed on a revised milestone. Although this agreement has diminished the risks associated with the Morococha land situation, there is no certainty that amended milestones can be agreed upon or achieved by the parties, that the relationship will continue in an amicable fashion, and that the future relocation and other costs associated with the commitments in the agreement will not render continued operations at the Morococha mine uneconomic.

Acquisitions

An element of our business strategy is to make selected acquisitions. For example, Pan American completed the acquisition of Corner Bay and with it, the Alamo Dorado mine, in February 2003, the acquisition of Argentum and the Morococha mine in August 2004, the acquisition from Silver Standard Resources Inc. in 2006 of a 50% interest in the Manantial Espejo project, in May 2007 an additional 40% interest in respect of the San Vicente mine, the acquisition of Aquiline and the Navidad and Calcatreu properties in January 2010, and the acquisition of Minefinders and the Dolores mine in 2012. We expect to continue to evaluate acquisition opportunities on a regular basis and intend to pursue those opportunities that we believe are in our long-term best interests. The success of our acquisitions will depend upon our ability to effectively manage the integration and operations of entities we acquire 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 we will be able to successfully manage the integration and operations of businesses we acquire or that the anticipated benefits of our acquisitions will be realized.

In addition to acquisitions, we periodically enter into joint venture, option and similar arrangements which, among other things, require an investment in time and capital. Such arrangements may depend, in part, on other parties and may be speculative in nature. There is no guarantee that any of these arrangements will be successful or that we will recover any capital or other investments made in relation thereto.

Limited Supplies and Supply Chain Disruptions

Our operations depend on an uninterrupted supply of reagents (including, but not limited to, cyanide at some operations), production inputs, and other supplies and resources such as skilled personnel. Supply may be interrupted due to a shortage or the scarce nature of inputs, especially with regard to chemical reagents. Supply might also be interrupted due to transportation and logistics associated with the remote location of some of our operations, and government restrictions or regulations which delay importation of necessary items. Any interruptions to the procurement and supply of reagents, production inputs and other supplies, or the availability of skilled personnel could have an adverse impact on our future cash flows, earnings, results of operations, and financial condition.

Developments Regarding Aboriginal and Indigenous Peoples

We operate in areas inhabited by aboriginal and indigenous peoples and by local communities. Developing laws and movements respecting the acquisition of lands and other rights from such people and communities may alter decades old arrangements or agreements made by prior owners of our mines and properties or even those made by us in more recent years. There can be no guarantee that we have entered into all agreements with aboriginal and indigenous people and with local communities in accordance with the laws governing aboriginal and indigenous peoples and local communities or that future laws and actions will not have a material adverse effect on our rights to explore or mine, or our financial position, cash flow, and results of operations. Furthermore, it is not uncommon for local communities and aboriginal and indigenous peoples to challenge agreements or arrangements previously entered into for various reasons. If we cannot maintain an agreement with aboriginal or indigenous peoples or with the communities within which we operate, there may be significant disruptions in our operations and activities, or we may be unable to operate at all in such areas.

Community Action

In recent years communities and non-governmental organizations (“NGOs”) have become more vocal and active with respect to mining activities at or near their communities. These communities and NGOs have taken such actions as road closures, work stoppages, and lawsuits for damages. These actions relate not only to current activities but often in respect of decades old mining activities by prior owners of mining properties. Such actions by communities and NGOs may have a material adverse effect on our financial position, cash flow, and results of operations or may force the cessation of mining activities altogether.

Taxation Risks

In addition to the risks relating to taxation discussed under the heading “Risks Related to Our Business – Governmental Regulation”, we are also exposed to other tax related risks. In assessing the probability of realizing income tax assets recognized, the Company makes estimates related to expectations of future taxable income, applicable tax planning opportunities, expected timing of reversals of existing temporary differences and the likelihood that tax positions taken will be sustained upon examination by applicable tax authorities. In making its assessments, we give additional weight to positive and negative evidence that can be objectively verified. Estimates of future taxable income are based on forecasted cash flows from operations and the application of existing tax laws in each jurisdiction. We consider relevant tax planning opportunities that are within the

Company's control, are feasible, and within management's ability to implement. Examination by applicable tax authorities is supported based on individual facts and circumstances of the relevant tax position examined in light of all available evidence. Where applicable tax laws and regulations are either unclear or subject to ongoing varying interpretations, it is reasonably possible that changes in these estimates can occur that materially affect the amounts of income tax assets recognized. Also, future changes in tax laws could limit the Company from realizing the tax benefits from the deferred tax assets. We reassess unrecognized income tax assets at each reporting period.

Commodity Hedging Activities

During Q1 2015, the Company entered into diesel swap contracts designed to limit the Company's exposure to higher fuel prices (the "Diesel Swaps"). The Diesel Swaps had an initial notional value of $13.0 million. During Q4 2015, the Company entered into additional Diesel Swaps with an initial notional value of $12.5 million. A total of $14.7 million of the notional amounts of the Diesel Swaps remained outstanding as of December 31, 2015. The Company recorded losses of $2.4 million and $3.1 million on the Diesel Swaps during the three and twelve months ended December 31, 2015, respectively. Of these losses, $0.8 million and $0.4 million was realized in both the three and twelve months ended December 2015, respectively. No such gains or losses were recorded in the three and twelve months ended December 31, 2014. While the Diesel Swaps are intended to limit our exposure to higher fuel prices, we may be forced to pay above market prices in declining price environments.

Internal Control over Financial Reporting

We documented and tested during our most recent fiscal year our internal control procedures in order to satisfy the requirements of Section 404 of the Sarbanes-Oxley Act of 2002 ("SOX"). SOX requires an annual assessment by management and an independent assessment by our Independent Registered Public Accounting Firm of the effectiveness of our internal control over financial reporting. We may fail to achieve and maintain the adequacy of our internal control over financial reporting as such standards are modified, supplemented, or amended from time to time, and we may not be able to ensure that we can conclude on an ongoing basis that we have effective internal control over financial reporting in accordance with Section 404 of SOX. Our failure to satisfy the requirements of Section 404 of SOX on an ongoing, timely basis could result in the loss of investor confidence in the reliability of our financial statements, which in turn could harm our business and negatively impact the trading price of our Common Shares or market value of our other securities. In addition, any failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our operating results or cause us to fail to meet our reporting obligations. There can be no assurance that we will be able to remediate material weaknesses, if any, identified in future periods, or maintain all of the controls necessary for continued compliance, and there can be no assurance that we will be able to retain sufficient skilled finance and accounting personnel, especially in light of the increased demand for such personnel among publicly traded companies. Future acquisitions of companies may provide us with challenges in implementing the required processes, procedures and controls in our acquired operations. Acquired companies may not have disclosure controls and procedures or internal control over financial reporting that are as thorough or effective as those required by securities laws currently applicable to us.

No evaluation can provide complete assurance that our internal control over financial reporting will detect or uncover all failures of persons employed by us to disclose material information otherwise required to be reported. The effectiveness of our control and procedures could also be limited by simple errors or faulty judgments. In addition, as we continue to expand, the challenges involved in implementing appropriate internal control over financial reporting will increase and will require that we continue to improve our internal control over financial reporting. Although we intend to devote substantial time and incur costs, as necessary, to ensure ongoing compliance and to adopt new standards and practices as required, we cannot be certain that we will be successful in complying with Section 404 of SOX.

Compliance

We are subject to complex laws and regulatory regimes that differ in the various jurisdictions in which we operate and are sometimes extra-jurisdictional in application. Ensuring that such laws and regulatory requirements are understood and followed by our personnel is difficult and we may inadvertently fail to comply with such laws and requirements or they may be contravened by our personnel. While we have established programs, policies and training to reduce and mitigate risks in certain areas, including anti-corruption compliance, there is no guarantee such programs, policies or training will prevent violations of the law, particularly by individual employees or agents. Violations of such laws, particularly those relating to corruption, could lead to the imposition of substantial fines, penalties or other civil or criminal prosecution or sanctions. Such fines penalties or other civil or criminal prosecutions and sanctions could have a material adverse effect on our business and severely damage our reputation.

Claims and Legal Proceedings

We are subject to various claims and legal proceedings covering a wide range of matters that arise in the ordinary course of business activities. Many of these claims relate to current or ex-employees, some of which involve claims of significant value, for matters ranging from workplace illnesses such as silicosis to claims for additional profit-sharing and bonuses in prior years. Furthermore, we are in some cases the subject of claims by local communities, indigenous groups or private land owners relating to land and mineral rights and such claimants may seek sizeable monetary damages against us and/or the return of surface or mineral rights that are valuable to us and which may impact our operations and profitability if lost. Each of these matters is subject to various uncertainties and it is possible that some of these matters may be resolved unfavourably to us. We carry liability insurance coverage and establish provisions for matters that are probable and can be reasonably estimated. In addition, we may be involved in disputes with other parties in the future that may result in litigation, which may result in a material adverse effect on our financial position, cash flow and results of operations.

DIVIDENDS

On February 15, 2010, Pan American announced that our Board of Directors had approved a semi-annual cash dividend to holders of our Common Shares. In conjunction with this approval, the Board declared its first cash dividend of $0.025 per Common Share to holders of record of our Common Shares as of the close of business on February 26, 2010. Pan American approved further dividends of $0.025 per Common Share on August 11 and November 8, 2010 and on February 15, May 18, August 10, and November 8, 2011. On February 22, 2012, Pan American announced our first dividend of the year and increased the amount of that dividend to $0.0375 per Common Share. Pan American approved another dividend of $0.0375 per Common Share on May 15, 2012, before increasing the amount to $0.050 per Common Share for dividends announced on August 14 and November 7, 2012. We increased our dividend once again when we approved a dividend of $0.125 per Common Share on February 20, 2013 and approved additional dividends of $0.125 per Common Share on each of May 13, August 14 and November 13, 2013, and on February 19, May 8, August 13 and November 13, 2014, and more recently on February 18, 2015. Our next dividend of $0.05 per Common Share was approved on May 11, 2015, followed by further dividend approvals of $0.05 per Common Share on each of August 13 and November 11, 2015. On February 17, 2016, the Board approved a dividend of $0.0125 per Common Share.

Each of the foregoing dividends was designated to be an eligible dividend for the purposes of the *Income Tax Act* (Canada). Specific dates and amounts of future dividends will be determined by the Board of Directors on an ongoing basis.

MARKET FOR SECURITIES

Pan American's Common Shares are listed and posted for trading on the Toronto Stock Exchange (under the symbol PAA) and The Nasdaq Stock Market (under the symbol PAAS). The majority of trading of our Common Shares takes place on The Nasdaq Stock Market. The following table outlines the closing share price trading range and volume of shares traded by month in 2015:

Toronto Stock Exchange (CAD$)				Nasdaq Stock Market (US$)			
Month	**High**	**Low**	**Volume**	**Month**	**High**	**Low**	**Volume**
January	14.96	10.53	10,991,176	January	11.95	9.01	51,133,115
February	15.06	11.99	4,663,559	February	12.05	9.57	39,179,118
March	12.28	10.8	4,781,743	March	9.848	8.49	44,556,515
April	11.93	11.1	5,767,375	April	9.87	8.84	34,321,218
May	12.47	11.095	3,515,201	May	10.44	9.08	32,938,421
June	12.27	10.64	4,519,879	June	10.04	8.51	62,128,478
July	10.85	7.77	9,719,333	July	8.59	5.93	64,437,975
August	9.94	7.77	10,975,127	August	7.59	5.85	66,645,642
September	9.47	7.91	6,271,600	September	7.24	5.95	51,307,530
October	11.55	8.1	12,787,139	October	8.7	6.10	60,077,651
November	10.26	8.5	5,695,346	November	7.825	6.3715	40,424,645
December	10.17	8.68	6,222,641	December	7.59	6.22	39,010,621

EXCEPTIONS FROM NASDAQ CORPORATE GOVERNANCE REQUIREMENTS

Under Rule 4350(a) of the Nasdaq Stock Market Rules (the "Nasdaq Rules"), a foreign private issuer (as defined in Rule 12b-2 under the U.S. Securities Exchange Act of 1934, as amended) may follow its home country practice in lieu of certain of the corporate governance requirements of the Nasdaq Rules. Pursuant to Rule 4350(a), Pan American follows British Columbia practice with respect to quorum requirements in lieu of Nasdaq Rule 4350(f).

Nasdaq Rule 4350(f) requires that the minimum quorum for a shareholder meeting is 33-1/3% of the outstanding common shares, whereas Pan American's articles provide that the minimum quorum for a meeting of the holders of our Common Shares is two individuals who are shareholders, proxy holders representing shareholders or duly authorized representatives of corporate shareholders personally present and representing shares aggregating not less than 25% of the issued Common Shares of Pan American carrying the right to vote at that meeting. In the event there is only one shareholder, the quorum is one person personally present and being, or representing by proxy, that shareholder, or in the case of a corporate shareholder, a duly authorized representative of that shareholder. Pan American's quorum requirement complies with the *Business Corporations Act* (British Columbia), which requires that unless the articles otherwise provide, two shareholders entitled to vote at a meeting of shareholders, whether in person or represented by proxy, constitute a quorum. Furthermore, the rules of the Toronto Stock Exchange, upon which our Common Shares are also listed, do not contain specific quorum requirements.

DIRECTORS AND EXECUTIVE OFFICERS

The names and municipalities of residences of our directors and executive officers as at December 31, 2015, the positions held by them with Pan American at that time and their principal occupations for the past five years are set out below:

Name and Municipality of Residence	Position with Pan American	Principal Occupation During the Past Five Years
ROSS J. BEATY[5] Vancouver, B.C. Canada	Director and Chairman (director of Pan American since September 30, 1988)	Business Executive and Chairman of Pan American.
GEOFFREY A. BURNS [4,5,7] North Vancouver, B.C. Canada	Director and Chief Executive Officer (director of Pan American since July 1, 2003)	President of Pan American from July 1, 2003 to February 17, 2015; Chief Executive Officer of Pan American since May 11, 2004.
MICHAEL CARROLL[1,5] Walnut Creek, California, U.S.A.	Director of Pan American since January 1, 2011	Corporate Director
CHRISTOPHER N. DUNN [2,3,5] VANCOUVER, B.C. CANADA	Director since January 1, 2012	Corporate Director, non-executive Managing Partner of Ero Resource Partners LLC, an equity investment firm.
NEIL DE GELDER, Q.C.[1, 3] VANCOUVER, B.C. CANADA	Director since July 3, 2012	Executive Vice President of Stern Partners, a private diversified investment firm.
DAVID PRESS[1,2,4] West Vancouver, B.C. Canada	Director of Pan American since May 13, 2008	Corporate Director
WALTER T. SEGSWORTH[2, 4,6] West Vancouver, B.C. Canada	Director of Pan American since May 12, 2009	Corporate Director
STEVEN BUSBY Vancouver, B.C. Canada	Chief Operating Officer	Chief Operating Officer since May 13, 2008.
A. ROBERT DOYLE North Vancouver, B.C. Canada	Chief Financial Officer	Chief Financial Officer of Pan American since January 2004.
KEENAN HOHOL West Vancouver, B.C. Canada	General Counsel	General Counsel since April 1,2015; Deputy General Counsel of Pan American from November 1, 2014, to March 31, 2015; prior to that, held senior legal positions at Silver Standard Resources Inc., Walter Energy, Inc. and Western Coal Corp.

MICHAEL STEINMANN[7] North Vancouver, B.C. Canada	President	President since February 18, 2015; Executive Vice President, Corporate Development & Geology since September 1, 2008.

Notes:

1 Member of the Audit Committee.

2 Member of the Human Resources and Compensation Committee.

3 Member of the Nominating and Governance Committee.

4 Member of the Health, Safety and Environment Committee.

5 Member of the Finance Committee.

6 Mr. Segsworth is our Lead Independent Director.

7 Mr. Steinmann replaced Mr. Burns as Chief Executive Officer and became a director of Pan American effective January 1, 2016.

The directors of Pan American are elected at each annual general meeting to hold office until the next annual general meeting or until their successors are elected or appointed. As at December 31, 2015, the Board of Directors consisted of seven directors six of whom, Ross Beaty, Christopher N. Dunn, Neil de Gelder, Michael Carroll, David Press and Walter Segsworth, qualify as unrelated directors who are independent of management. The Board of Directors has established five committees: the Audit Committee, the Human Resources and Compensation Committee, the Health, Safety, Environment and Communities Committee, the Nominating and Governance Committee, and the Finance Committee. Detailed information regarding the duties and obligations of the Audit Committee is annexed as Appendix "A" to this AIF. The Board of Directors does not have an Executive Committee. The composition of the various committees as at December 31, 2015, is set forth in the preceding table.

As at March 23, 2015, the directors and officers of Pan American named above as a group exercised control or direction or beneficially owned, directly or indirectly, 3,035,764 Common Shares approximately 1.98% of the issued and outstanding Common Shares of Pan American.

Except as noted below, none of Pan American's directors or executive officers:

(a) are, as at the date of this AIF, or have been, within 10 years before the date of this AIF, a director, chief executive officer or chief financial officer of any company (including Pan American) that,

  (i) was subject to an order that was issued while the proposed director was acting in the capacity as director, chief executive officer or chief financial officer; or

  (ii) was subject to an order that was issued after the proposed director ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer;

(b) are, as at the date of this AIF, or has been within 10 years before the date of this AIF, a director or executive officer of any company (including Pan American) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or

(c) have, within the 10 years before the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director or executive officer.

In addition, none of Pan American's directors and executive officers has been subject to:

(a) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or

(b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable shareholder in making an investment decision.

Audit Committee

As at December 31, 2015, the members of the Audit Committee were Michael Carroll (Chair), Neil de Gelder, and David Press. The Board of Directors has determined based on the information provided by each director that all members of the Audit Committee meet the independence requirements set out in National Instrument 52-110 – *Audit Committees*, and as defined under the rules and regulations of the Nasdaq Stock Market. All members of the Audit Committee are financially literate and Michael Carroll, an individual serving on the audit committee of the Board of Directors, is an audit committee financial expert, as that term is defined in General Instruction B(8)(b) of Form 40-F.

The SEC has indicated that the designation of a person as an audit committee financial expert does not make such person an "expert" for any purpose, impose any duties, obligations or liabilities on such person that are greater than those imposed on members of the audit committee and the board of directors who do not carry this designation or affect the duties, obligations or liability of any other member of the audit committee or board of directors.

Relevant Education and Experience of Audit Committee Members

The relevant education and experience of each member of the Audit Committee that is relevant to the performance of the Audit Committee responsibilities are as follows:

Michael L. Carroll (Chair) is a Certified Public Accountant with over 30 years of financial management expertise, primarily with publicly traded mining companies and has previously served on the audit committee of another public company.

Neil de Gelder, Q.C., has over 25 years of experience as a lawyer specializing in corporate, mergers and acquisitions, and financing matters with a major Canadian law firm, frequently advising boards of publicly traded companies. He has been the Executive Director of the British Columbia Securities Commission, and is currently Executive Vice-President of a private diversified investment firm based in Vancouver. In this capacity, he is routinely involved in reviewing internal management financial reporting and external audited and unaudited financial statements from the perspective of an owner or director. Mr. de Gelder has served on a wide variety of corporate, Crown, charitable, and community boards over the years, including serving on the audit committee of a B.C. venture capital fund. Mr. de Gelder is a frequent participant in seminars presented by the Institute of Corporate Directors and by audit firms relating to audit committees and financial matters.

David Press is a mining engineer with almost 40 years of diversified experience in the mining industry, including the evaluation and investigation efforts for potential acquisitions. Mr. Press graduated from Nottingham University with an honours degree in mining engineering in 1967. In addition to his previous experience in public companies, since becoming a director of Pan American, Mr. Press has attended a number of finance related seminars and courses, including satisfying the academic requirements for the Directors Education Program of the Institute of Corporate Directors which includes audit and finance modules.

External Auditor Service Fees

Audit Fees

The aggregate fees billed by Deloitte LLP, Pan American's Independent Registered Public Accounting Firm, for the fiscal years ended December 31, 2015 and 2014 for professional services rendered by Deloitte LLP for the audit of Pan American's annual consolidated financial statements or services that are normally provided by Deloitte LLP in connection with statutory and regulatory filings or engagements for such years were approximately $1,836,000 and $2,064,000, respectively.

Audit-Related Fees

The aggregate fees billed by Deloitte LLP for the fiscal years ended December 31, 2015 and 2014 for assurance and related services rendered by it that are reasonably related to the performance of the audit or review of Pan American's consolidated financial statements and are not reported above as audit fees were approximately $66,000 and $28,000, respectively. In 2015, such fees related primarily to the review of certain of our securities filings and subsidiary audit procedures.

Tax Fees

The aggregate fees billed by Deloitte LLP for the fiscal years ended December 31, 2015 and 2014 for professional services rendered by it for tax compliance, tax advice, tax planning, and other services were approximately $45,000 and $81,000, respectively. In 2015, such fees related primarily to the provision of services related to transfer pricing and tax compliance reports (foreign income and VAT returns).

Other Fees

The aggregate fees billed by Deloitte LLP for the fiscal years ended December 31, 2015 and 2014 for products and services provided by Deloitte LLP, other than the services reported in the preceding three paragraphs, were approximately $53,000 and $10,000, respectively. For 2015, these were comprised of Canadian Public Accountability Board fees.

Audit Committee Pre-Approval Policies

All audit and non-audit services performed by the Independent Registered Public Accounting Firm are pre-approved by the Audit Committee.

Conflicts of Interest

Certain officers and directors of Pan American 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 act in the best interests of Pan American and our shareholders and to disclose any personal interest which they may have in any material transaction which is proposed to be entered into by us and to abstain from voting as a director for the approval of any such transaction.

LEGAL PROCEEDINGS AND REGULATORY ACTIONS

A description of certain legal proceedings to which we are a party appear under the heading "Commitments and Contingencies" in Note 28 to our Audited Consolidated Financial Statements for the year ended December 31, 2015.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

To the best of our knowledge, no director or executive officer of the Company, nor any person or company that beneficially owns, controls, directs, directly or indirectly, more than 10% of our Common Shares, nor any associate or affiliate of any of the foregoing persons, has or had a material interest in any transaction within the three most recently completed financial years or during the current financial year that has materially affected or is reasonably expected to materially affect the Company.

TRANSFER AGENTS AND REGISTRAR

The transfer agent and registrar for our Common Shares is Computershare Investor Services Inc. at its principal office in Vancouver, British Columbia, and Computershare Trust Company, N. A. at its office in Denver, Colorado, U.S.A.

MATERIAL CONTRACTS

Except for contracts entered into in the ordinary course of business, no material contracts have been entered into by the Company during the financial year ended December 31, 2015, and no material contracts were entered into by the Company before the financial year ended December 31, 2015, which are still in effect.

INTERESTS OF EXPERTS

Deloitte LLP, an Independent Registered Public Accounting Firm, is the auditor of Pan American and is independent within the meaning of the Rules of Professional Conduct of the Institute of Chartered Professional Accountants of British Columbia.

The Qualified Persons as defined by NI 43-101 who have prepared or supervised the preparation of Pan American's mineral reserve and mineral resource estimates as at December 31, 2015, and who supervised the preparation of and approved the scientific and technical information disclosed in this AIF, as described under the heading "Scientific and Technical Information" on page 6, are Michael Steinmann, President and Chief Executive Officer, Martin Wafforn, Vice President, Technical Services, Martin Dupuis, Director of Geology, Pamela De Mark, Director of Resources, and Americo Delgado, Director of Metallurgy, all of whom are employees of Pan American.

Michael Steinmann, P. Geo., Martin Wafforn, P. Eng., Martin Dupuis, P. Geo., Pamela De Mark, P. Geo., and Americo Delgado, P.Eng. are the persons who have prepared or certified a statement, report, or valuation described in this AIF.

None of Michael Steinmann, P. Geo., Martin Wafforn, P. Eng., Martin Dupuis, P. Geo., Pamela De Mark, P. Geo., or Americo Delgado, P. Eng. beneficially owns, directly or indirectly, 1% or more of any class of Pan American's outstanding securities.

ADDITIONAL INFORMATION

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of Pan American's securities, and securities authorized for issuance under equity compensation plans, is contained in Pan American's Information Circular for the most recent annual meeting of shareholders. Additional

financial information is also provided in Pan American's Audited Consolidated Financial Statements for the years ended December 31, 2015 and 2014, and Management's Discussion and Analysis for the year ended December 31, 2015. Additional information relating to Pan American may be found on SEDAR at www.sedar.com.

GLOSSARY OF TERMS

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

"*inferred mineral resource*" – That part of a mineral resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological 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.

"*indicated mineral resource*" – That 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 a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

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

"*mineral reserve*" – A mineral reserve is 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 when the material is mined.

"probable mineral reserve" - 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.

"proven mineral reserve" - 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.

APPENDIX "A"

PAN AMERICAN SILVER CORP.
(the "Company")

AUDIT COMMITTEE CHARTER

PURPOSE

Senior management of Pan American Silver Corp. (the "**Company**"), as overseen by its Board of Directors (the "**Board**"), has primary responsibility for the Company's financial reporting, accounting systems and internal controls. The Audit Committee (the "**Committee**") is a standing committee of the Board established for the purposes of overseeing:

a. the quality and integrity of the Company's financial and accounting reporting processes and internal accounting and financial control systems;

b. the external auditor's qualifications and independence;

c. management's responsibility for assessing the effectiveness of internal controls; and

d. the Company's compliance with legal and regulatory requirements in connection with financial and accounting matters.

COMPOSITION AND OPERATION

a. The Committee shall be composed of at least three independent directors[1] and all members of the Committee shall, to the satisfaction of the Board, be Financially Literate and at least one member will be a Committee Financial Expert ("**Financially Literate**" and "**Committee Financial Expert**" are defined in the Definitions section of this Charter).

b. The members of the Committee shall be appointed by the Board, based on the recommendation of the Nominating and Governance Committee, to serve a one-year term and are permitted to serve an unlimited number of consecutive terms.

c. The Committee shall appoint a chair (the "**Chair**") from among its members who shall be an independent director. If the Chair is not present at any meeting of the Committee, one of the other Committee members present at the meeting shall be chosen to preside at the meeting.

[1] In order to be considered "**independent**", the following applies:

Pursuant to the Canadian Securities Administrators' Multilateral Instrument 52-110 "**Audit Committees**", a member of the Committee must not have a direct or indirect material relationship with the Company. A "**material relationship**" is a relationship which could, in the view of the Company's Board, be reasonably expected to interfere with the exercise of a member's independent judgment.

Pursuant to United States securities laws, a member of the Committee may not accept directly or indirectly any consulting, advisory, or other compensatory fee from the Company or any of its subsidiaries; nor be an affiliated person, as such term is defined in Rule 10A-3 of the *Securities and Exchange Act of 1934*, of the Company or any of its subsidiaries.

d. The Committee will make every effort to meet at least five times per year and each member is entitled to request that an additional meeting be called, which will be held within two weeks of the request for such meeting if practicable. A quorum at meetings of the Committee shall be two members present in person or by telephone. The Committee may also act by unanimous written consent of its members as described under the heading "**Authority**" in this Charter.

e. The external auditor may request the Chair to call a meeting of the Committee to consider any matter that the auditor believes should be brought to the attention of the directors or the shareholders of the Company. In addition to the external auditor, each committee chair, members of board, as well as the Chief Executive Officer or Chief Financial Officer shall be entitled to request the Chair to call a meeting, which meeting shall be held as soon as practicable after receiving the request.

f. Notice of the time and place of every meeting shall be given in writing or by email communication to each member of the Committee at least 24 hours prior to the time fixed for such meeting.

g. The Committee shall fix its own procedure at meetings, keep records of its proceedings and provide a verbal report to the Board routinely at the next regularly scheduled Board meeting and shall provide copies of finalized minutes of meetings to the Corporate Secretary to be kept with the official minute books of the Company.

h. The Committee will review and approve its minutes of meetings and copies will be made available to the external auditor or its members as requested.

i. In camera sessions will be scheduled for each regularly scheduled quarterly Committee meeting, and as needed from time to time.

j. On an ad hoc basis, the Committee may also meet separately with head of internal audit, the Chief Executive Officer, the Chief Financial Officer, the General Counsel and such other members of management as they may deem necessary.

RESPONSIBILITIES AND DUTIES

Overall Committee:

To fulfill its responsibilities and duties the Committee will:

a. review this Charter periodically, but at least once per annum, and recommend to the Board any necessary amendments;

b. review and, where necessary, recommend revisions to the Company's disclosure in the Management Information Circular regarding Committee's composition and responsibilities and how they are discharged;

c. assist the Board in the discharge of its responsibilities relating to the quality, acceptability and integrity of the Company's accounting policies and principles, reporting practices and internal controls;

d. review and recommend approval by the Board of all significant and material financial disclosure documents to be released by the Company, including but not limited to, quarterly and annual financial statements and management discussion and analysis, annual reports, Form 40-F, annual information forms, and prospectuses containing material information of a financial nature; and

e. oversee the relationship and maintain a direct line of communication with the Company's internal and external auditors and assess their respective performance.

Public Filings, Policies and Procedures:

The Committee is responsible for:

a. ensuring adequate procedures are in place for the review of the Company's disclosure of financial information extracted or derived from the Company's financial statements and periodically assess the Company's disclosure controls and procedures, and management's evaluation thereof, to ensure that financial information is recorded, processed, summarized and reported within the time periods required by law;

b. reviewing disclosures made to the Committee by the Chief Executive Officer and the Chief Financial Officer during their certification process for any significant deficiencies in the design or operation of internal controls or material weaknesses therein and any fraud involving management or other employees who have a significant role in internal controls;

c. reviewing with management and the external auditor any correspondence with securities regulators or other regulatory or government agencies which raise material issues regarding the Company's financial reporting or accounting policies; and

d. regularly reviewing with management, the external auditors and the Company's legal counsel, any claim or other contingency, including tax assessments, that could have a material effect upon the financial position or operating results of the Company and the manner in which these matters have been disclosed in the financial statements.

External Auditors

The responsibilities and duties of the Committee as they relate to the external auditor are to:

a. consider and make recommendations to the Board with respect to the external auditor to be nominated for appointment by shareholders at each annual general meeting of the Company;

b. review the performance of the external auditor and, where appropriate, recommend to the Board the removal of the external auditor;

c. confirm the independence and effectiveness of the external auditor, which will require receipt from the external auditor of a formal written statement delineating all relationships between the auditor and the Company and any other factors that might affect the independence of the auditor;

d. oversee the work of the external auditor generally, and review and report to the Board on the planning and results of external audit work, including:

    i. the external auditor's engagement letter or other reports of the auditor;

    ii. the reasonableness of the estimated fees and other compensation to be paid to the external auditor;

    iii. the form and content of the quarterly and annual audit report, which should include, *inter alia*:

        - a summary of the Company's internal controls and procedures;
        - any material issues raised in the most recent meeting of the Committee; and
        - any other related audit, review or attestation services performed for the Company by the external auditors.

e. actively engage in dialogue with the external auditor with respect to any disclosed relationships or services that may affect the independence and objectivity of the external auditor and take, or recommend that the Board take, appropriate actions to oversee the independence of the external auditor;

f. review and pre-approve all non-audit services provided to the Company or its subsidiaries by the external auditor prior to the commencement of such services and pre-approval of non-audit services will be satisfied only if the requirements as set out in *National Instrument 52-110 "Audit Committees"* are satisfied;

g. monitor the relationship between management and the external auditor and resolve any disagreements between them regarding financial reporting;

h. engage the external auditor in discussions regarding any amendments to critical accounting policies and practices; alternative treatments of financial information within generally accepted accounting principles related to material items that have been discussed with management, including any potential ramifications and the preferred treatment by the independent auditor; and lastly, written communication between management and the independent auditor, including but not limited to, the management letter and schedules of adjusted and unadjusted differences, as applicable.

Internal Controls and Financial Reporting

The Committee will:

a. obtain reasonable assurance from discussions with (and/or reports from) management, and reports from external and internal auditors that the Company's financial and accounting systems are reliable and that the prescribed internal controls are operating effectively;

b. in consultation with the external auditor, the CEO, the CFO, and where necessary, other members of management, review the integrity of the Company's financial reporting process and the internal control structure;

c. review the acceptability of the Company's accounting principles and direct the auditors' examinations to particular areas of question or concern, as required;

d. request the auditors to undertake special examinations (e.g., review compliance with conflict of interest policies) when it deems necessary;

e. together with management, review control weaknesses identified by the external and internal auditors;

f. review the appointments of the chief financial officer and key financial executives;

g. ensure CEO and CFO certifications pursuant to Sarbanes-Oxley Act sections 302 and 906 and pursuant to Canadian securities laws are prepared and filed and will make inquiry and initiate discussion as necessary with management regarding the practices and procedures adopted to permit management's assurance on the underlying controls; and

h. during the annual audit process, consider if any significant matters regarding the Company's internal controls and procedures over financial reporting, including any significant deficiencies or material weaknesses in their design or operation, need to be discussed with the external auditor, and review whether internal control recommendations made by the auditor have been implemented by management.

Internal Audit

The Committee shall be responsible for reviewing:

a. activities, organization structure and qualifications of the internal audit function;

b. the resources, budget, reporting relationships and planned activities of the internal audit function;

c. internal audit findings and determine that they are being properly followed up;

d. the internal audit procedures and recommending changes, if any; and

e. the adequacy of the line of communication between internal audit and the Committee, ensuring that it is maintained.

Ethical and Legal Compliance and Risk Management

The responsibilities and duties of the Committee as they relate to compliance and risk management are to:

a. satisfy itself as to the integrity of the CEO and other senior management and that the CEO and other senior management strive to create a culture of integrity throughout the Company;

b. review the adequacy, appropriateness and effectiveness of the Company's policies and business practices which impact on the integrity, financial and otherwise, of the Company, including those relating to hedging, insurance, accounting, information services and systems, financial controls and management reporting;

c. receive a report from management on tax issues and planning, including compliance with the Company's source deduction obligations and other remittances under applicable tax or other legislation;

d. receive a report on the annual policy attestation process for the Company's Global Code of Ethical Conduct (the "**Code**") and Global Anti-Corruption Policy;

e. review annually the adequacy and quality of the Company's financial and accounting staffing, including the need for and scope of internal audit reviews (if any);

f. receiving reports from management and other Board committees, including without limitation the Health Safety, Environment and Community Committee, on the identification, assessment and management of risks;

g. in conjunction with any other committee designated by the Board from time to time, reviewing major financial, audit and accounting related risks and the policies, guidelines and mechanisms that management has put in place to govern the process of monitoring, controlling and reporting such risks;

h. establish procedures for:

    i. the receipt, retention and treatment of complaints received by the Company regarding accounting, internal controls, or auditing matters; and

    ii. the confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting or auditing matters.

i. review any complaints and concerns received regarding accounting, internal controls, or auditing matters or with respect to the Code, and the investigation and resolution thereof, and provide all relevant information

relating to such complaints and concerns to the Nominating and Governance Committee, taking into account complainant confidentiality concerns and the roles and responsibilities of each Committee;

j. review and monitor the Company's compliance with applicable legal and regulatory requirements related to financial reporting and disclosure;

k. review all related-party transactions; and

l. carry the responsibility for reviewing reports from management, internal and external auditors with respect to the Company's compliance with the laws and regulations having a material impact on financial reporting and disclosure, including: tax and financial reporting laws and regulations; legal withholding requirements; environmental protection laws and regulations; and any other laws and regulations which expose directors to liability.

AUTHORITY

a. The Committee shall have the authority to:

   i. engage independent counsel and other advisors as it determines necessary to carry out its duties;

   ii. set and pay the compensation for any advisors employed by the Committee; and

   iii. communicate directly with the internal and external auditors.

b. The Committee shall have the power, authority and discretion delegated to it by the Board which shall not include the power to change the membership of or fill vacancies in the Committee.

c. A resolution approved in writing by the members of the Committee shall be valid and effective as if it had been passed at a duly called meeting. Such resolution shall be filed with the minutes of the proceedings of the Committee and shall be effective on the date stated thereon or on the latest date stated in any counterpart.

d. The Board shall have the power at any time to revoke or override the authority given to or acts done by the Committee except as to acts done before such revocation or act of overriding and to terminate the appointment or change the membership of the Committee or fill vacancies in it as it shall see fit.

e. The Committee shall have unrestricted and unfettered access to all Company personnel and documents and shall be provided with the resources necessary to carry out its responsibilities.

f. At the invitation of the Chair, one or more officers or employees of the Company may, and if required by the Committee, shall attend a meeting of the Committee.

g. The Committee, upon approval by a majority of the members of the Committee, may delegate certain of its duties and responsibilities to subcommittees of the Committee, which must report back to the full Committee.

DEFINITIONS

Capitalized terms used in this Charter and not otherwise defined have the meaning attributed to them below:

"**Financially Literate**" means the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised in the Company's financial statements.

"**Committee Financial Expert**" means a person who has the following attributes:

a. an understanding of generally accepted accounting principles and financial statements;

b. the ability to assess the general application of such principles in connection with the accounting for estimates, accruals and reserves;

c. experience preparing, auditing, analyzing or evaluating financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and level of complexity of issues that can reasonably be expected to be raised in the Company's financial statements, or experience actively supervising one or more persons engaged in such activities;

d. an understanding of internal controls and procedures for financial reporting; and

e. an understanding of audit committee functions; acquired through any one or more of the following:

    i. education and experience as a principal financial officer, principal accounting officer, controller, public accountant or auditor or experience in one or more positions that involve the performance of similar functions;

    ii. experience actively supervising a principal financial officer, principal accounting officer, controller, public accountant, auditor or person performing similar functions; or

    iii. experience overseeing or assessing the performance of companies or public accountants with respect to the preparation, auditing or evaluation of financial statements; or other relevant experience.