TUMBADOR
42510

PAN AMERICAN
SILVER

2016
ANNUAL REPORT

Corporate Profile

Pan American Silver Corp. is one of the largest primary silver producers in the world. We own and operate seven mines across Mexico, Peru, Argentina and Bolivia. Pan American also owns several development projects in Mexico, Peru and Argentina.

Our vision is to be the world's pre-eminent silver producer, with a reputation for excellence in discovery, engineering, innovation and sustainable development. We aim to achieve this by:

- Generating sustainable profits and superior returns on investments through the safe, efficient and environmentally sound development and operation of silver assets.
- Constantly replacing and growing our mineable silver reserves and resources through targeted near-mine exploration and global business development.
- Fostering positive long-term relationships with our employees, shareholders, communities and local governments through open and honest communication and ethical and sustainable business practices.
- Continually searching for opportunities to upgrade and improve the quality of our silver assets both internally and through acquisition.
- Encouraging our employees to be innovative, responsive and entrepreneurial throughout our entire organization.

The Company is headquartered in Vancouver, B.C. and our shares trade on NASDAQ and the Toronto Stock Exchange under the ticker "PAAS".

To find out more, visit Pan American Silver's website at: www.panamericansilver.com

Table of Contents

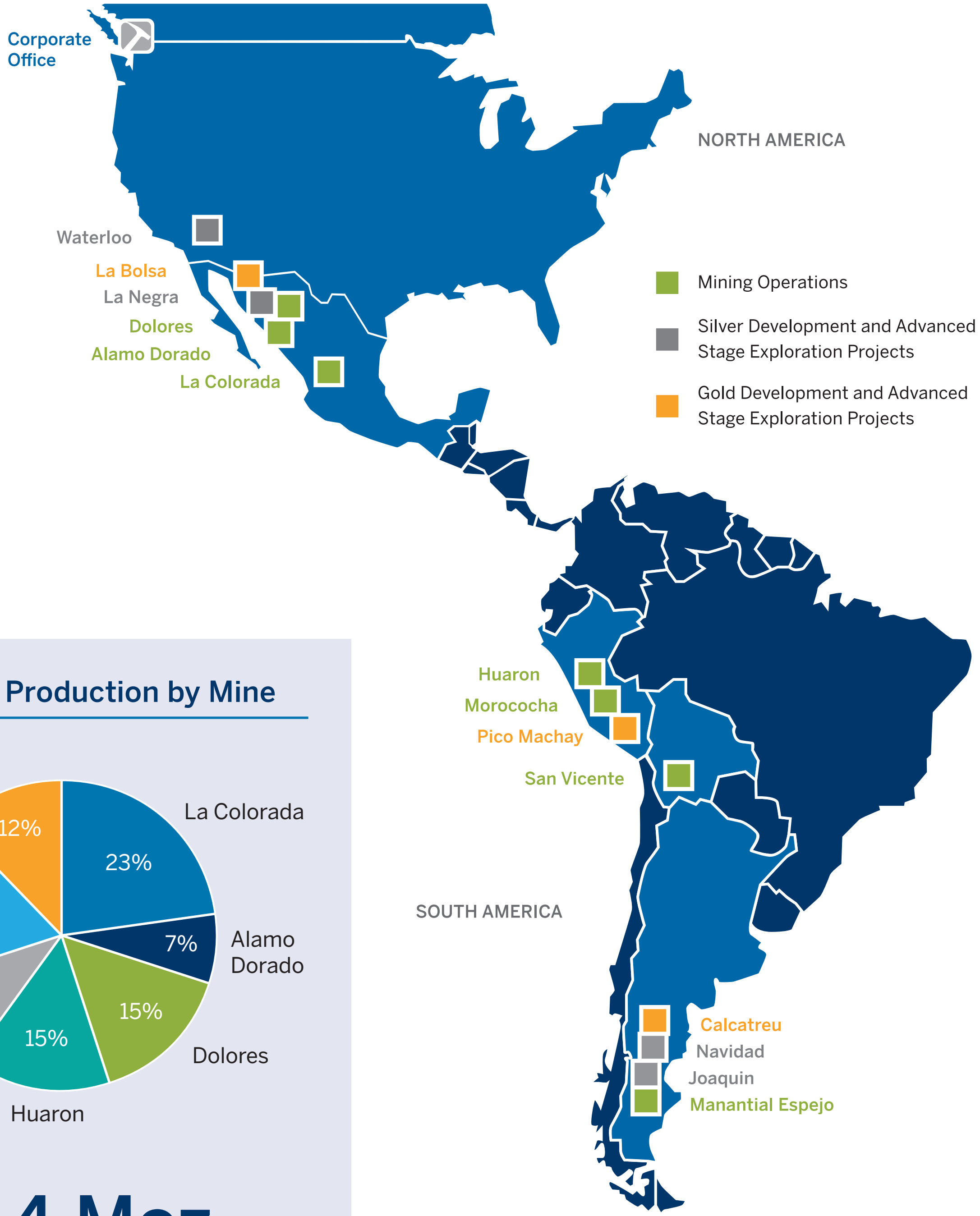
2	2016 Highlights
4	Scorecard and 2017 Targets
6	Chairman's Message
8	CEO Message
11	Management's Discussion and Analysis
77	Consolidated Financial Statements
86	Notes to Consolidated Financial Statements
IBC	Advisory

Certain of the statements and information in this annual report constitute "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 and "forward-looking information" within the meaning of applicable Canadian provincial securities laws. Please refer to the inside back cover of this annual report for an important note to readers regarding forward-looking statements and information.

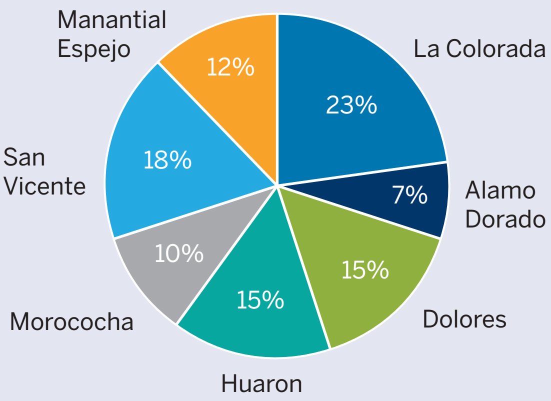
All financial data in this report is stated in US dollars unless otherwise noted.

ONE TROY OUNCE .999 SILVER
NORTHWEST TERRITORIAL MINT
PAN AMERICAN SILVER CORP

Company at a Glance


Corporate Office
NORTH AMERICA
Waterloo
La Bolsa
La Negra
Dolores
Alamo Dorado
La Colorada
🟩 Mining Operations
▨ Silver Development and Advanced Stage Exploration Projects
🟧 Gold Development and Advanced Stage Exploration Projects
Huaron
Morococha
Pico Machay
San Vicente
SOUTH AMERICA
Calcatreu
Navidad
Joaquin
Manantial Espejo

2016 Silver Production by Mine



25.4 Moz

TOTAL SILVER PRODUCTION IN 2016

Our Operating Mines

Dolores

Location: Chihuahua, Mexico

Ownership: 100%

Mine Type: Open Pit/Underground

Nominal Plant Capacity: Projected to increase from 16,200 tonnes per day to 20,000 tonnes per day by the end of 2017

2016 Silver Production (Moz): 3.84

By-Products: Gold

Estimated Mine Life: ~ 11 years

Silver Reserves (Contained Moz)[1]: Proven 36.1; Probable 17.9; Total 54.0

Currently under expansion to increase silver and gold production.

La Colorada

Location: Zacatecas, Mexico

Ownership: 100%

Mine Type: Underground

Nominal Plant Capacity: Projected to increase from 1,250 tonnes per day to 1,800 tonnes per day by the end of 2017

2016 Silver Production (Moz): 5.80

By-Products: Gold, zinc, lead

Estimated Mine Life: ~ 13 years

Silver Reserves (Contained Moz)[1]: Proven 51.3; Probable 46.8; Total 98.1

High-grade silver mine currently under expansion, with significant increases expected in silver, zinc and lead production.

> **Pan American has a portfolio of high-quality assets** diversified throughout the Americas, with long-life mines offering a solid production profile and exploration potential.

Alamo Dorado

Location: Sonora, Mexico

Ownership: 100%

Mine Type: Open Pit

Nominal Plant Capacity: 4,000 tonnes per day

2016 Silver Production (Moz): 1.86

By-Products: Gold

Estimated Mine Life: < 1 year

Mine to transition to reclamation phase in 2017.

[1] For complete mineral reserve details, please see pages 73 to 74.

[2] All figures reflect Pan American's ownership in the projects.

Morococha

Location: Junin, Peru

Ownership: 92.3%

Mine Type: Underground

Nominal Plant Capacity:
2,000 tonnes per day

2016 Silver Production (Moz)[2]: 2.54

By-Products: Gold, zinc, lead, copper

Estimated Mine Life: ~ 9 years

Silver Reserves (Contained Moz)[1,2]:
Proven 14.6; Probable 12.8; Total 27.4

Mechanization of operations has helped to improve productivity and reduce costs.

Huaron

Location: Pasco, Peru

Ownership: 100%

Mine Type: Underground

Nominal Plant Capacity:
2,300 tonnes per day

2016 Silver Production (Moz): 3.81

By-Products: Gold, zinc, lead, copper

Estimated Mine Life: ~ 14 years

Silver Reserves (Contained Moz)[1]:
Proven 30.8; Probable 20.6; Total 51.4

Mechanization efforts have helped improve productivity and efficiency.

Manantial Espejo

Location: Santa Cruz, Argentina

Ownership: 100%

Mine Type: Open Pit/Underground

Nominal Plant Capacity:
2,000 tonnes per day

2016 Silver Production (Moz): 3.14

By-Products: Gold

Estimated Mine Life: ~ 4 years

Silver Reserves (Contained Moz)[1]:
Proven 8.0; Probable 3.8; Total 11.8

Evaluating synergies with recently acquired Joaquin project.

San Vicente

Location: Potosí, Bolivia

Ownership: 95%

Mine Type: Underground

Nominal Plant Capacity:
950 tonnes per day

2016 Silver Production (Moz)[2]: 4.43

By-Products: Gold, zinc, lead, copper

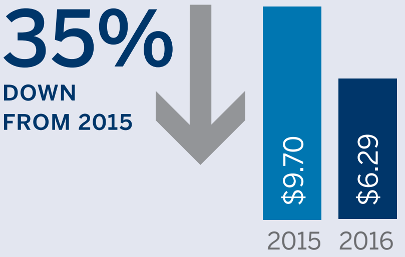
Estimated Mine Life: ~ 8 years

Silver Reserves (Contained Moz)[1,2]:
Proven 29.4; Probable 9.2; Total 38.6

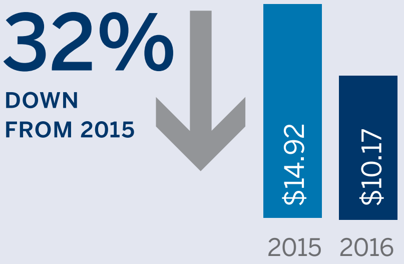
Pan American's highest grade silver mine.

2016 Highlights

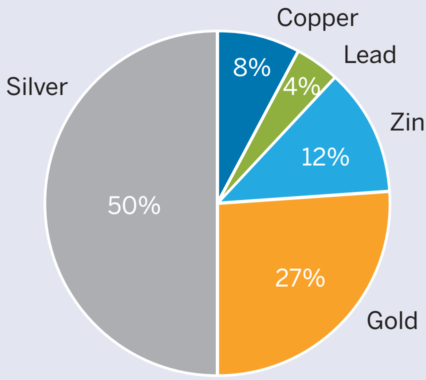
Cash Costs[1]



AISCSOS[2]



Approximate Revenue Generated by Metal



$774.8 M

TOTAL REVENUE IN 2016

Financial Highlights

($ millions, except per share amounts)	2016	2015
Revenue	774.8	674.7
Net Earnings (Loss)	101.8	(231.6)
Per share (Basic)	0.66	(1.49)
Net Cash Generated from Operating Activities	214.8	88.7
Adjusted Earnings (Loss)[3]	86.6	(41.3)
Per share (Basic)[3]	0.57	(0.27)
Cash and Short-Term Investments at Dec. 31	217.6	226.6
Total Debt[4]	43.3	59.8
Working Capital at Dec. 31[5]	428.6	392.2
Dividends	7.6	41.7
Per share	0.05	0.275

[1] Cash Costs per ounce of silver, net of by-products ("Cash Costs") is calculated as the net cost of producing an ounce of silver, our primary payable metal, after deducting revenues gained from incidental by-product metals production. Cash Costs is a Non-GAAP measure.

[2] All-in sustaining costs per silver ounce sold, net of by-products ("AISCSOS") reflects the full cost of operating our consolidated business given it includes the cost of replacing silver ounces through exploration, the cost of ongoing capital investments (sustaining capital), general and administrative expenses, as well as other items that affect the Company's consolidated cash flow. AISCSOS is a Non-GAAP measure.

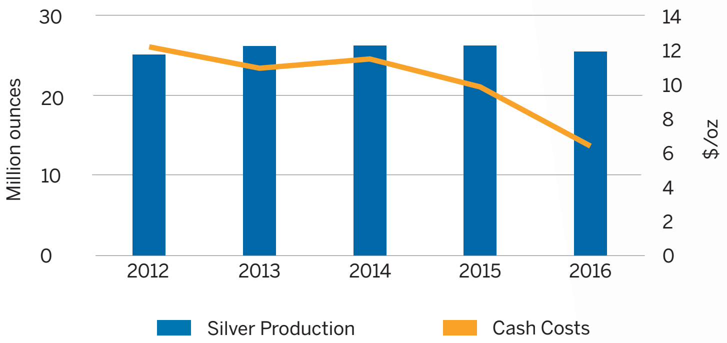
[3] The Company considers Adjusted Earnings to better reflect normalized earnings, as it eliminates items that may be volatile from period to period, or relate to positions that will settle in future periods. Adjusted Earnings is a Non-GAAP measure.

[4] Total Debt is calculated as the total current and non-current portions of long-term debt, finance lease liabilities, and loans payable. Total debt is a Non-GAAP measure.

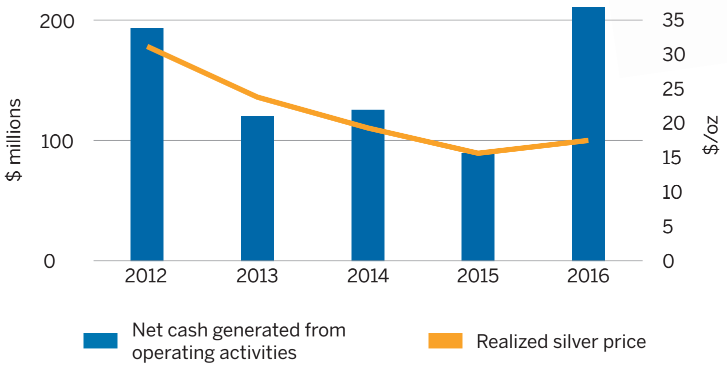
[5] Working Capital is calculated as current assets less current liabilities. Working Capital is a Non-GAAP measure.

See the Alternative Performance (Non-GAAP Measures) section in the Management's Discussion & Analysis on page 54.

Consolidated Production and Cash Costs[1]



Net Cash Generated from Operating Activities



Net earnings of

$101.8 M

in 2016

Mineral Reserves[6, 7, 8] (as at December 31, 2016)

Classification	Million tonnes	Silver grams per tonne	Contained silver (million ounces)	Gold grams per tonne	Contained gold (thousand ounces)	Copper %	Lead %	Zinc %
Proven	67.2	80	173.3	0.74	1,361.5	0.44	1.32	3.18
Probable	39.8	88	112.5	0.64	678.8	0.42	1.42	2.91
Proven + Probable	107.0	83	285.8	0.70	2,040.3	0.43	1.36	3.06

[6] Prices used to estimate mineral reserves for 2016 were $18.50 per ounce of silver, $1,300 per ounce of gold, $2,200 per tonne of zinc, $2,000 per tonne of lead, and $5,000 per tonne of copper, except at Manantial Espejo where $17.00 per ounce of silver and $1,200 per ounce of gold were used for planned 2017 production, reverting to $18.50 per ounce of silver and $1,300 per ounce of gold thereafter. Metal prices used for La Bolsa were $14.00 per ounce of silver and $825 per ounce of gold.

[7] Mineral reserve estimates were prepared under the supervision of, or were reviewed by, Christopher Emerson, FAusIMM, Vice President Business Development and Geology and Martin G. Wafforn, P.Eng., Senior Vice President Technical Services and Process Optimization, each of whom are Qualified Persons as that term is defined in National Instrument 43-101 ("NI 43-101").

[8] Base metals grades (copper, lead and zinc) are only for the Company's mines that produce that base metal.

See pages 73 to 74 for complete reserves and resources information.

Scorecard and 2017 Targets

Performance Measure	2016 Target[1]	2016 Actual	2017 Target
Silver production (million ounces)	24.0 – 25.0	✓✓ 25.4	24.5 – 26.0
Gold production (thousand ounces)	175 – 185	✓ 183.9	155 – 165
Base metal production (thousand tonnes)			
Zinc	46.0 – 48.0	✓✓ 51.9	56.5 – 58.5
Lead	15.0 – 15.5	✓✓ 20.2	19.0 – 20.0
Copper	13.0 – 13.5	✓✓ 14.4	8.8 – 9.3
Cash costs[2]	$9.45 – $10.45	✓✓ $6.29	$6.45 – $7.45
All-in sustaining costs per silver ounce sold (AISCSOS)[2]	$13.60 – $14.90	✓✓ $10.17	$11.50 – $12.90
Sustaining capital (millions)[3]	$65.0 – $75.0	$79.5	$82.0 – $88.0
Project capital (millions)[3]	$135.0 – $140.0	$119.0	$58.0 – $62.0

✓✓ Exceeded Target ✓ Achieved Target ✗ Not Achieved

2016 Achievements

- Progressed the **La Colorada mine expansion**, successfully commissioning both the new sulphide processing plant and the new mine shaft.
- Progressed the **Dolores Mine expansion**, commencing construction on the pulp agglomeration plant and energizing the new 115kV power line.
- More than **replaced reserves** depleted through mining, ending 2016 with silver mineral reserves of 285.8 million ounces.[4]
- Advanced a new silver exploration project in Mexico through the option agreement with **Kootenay Silver Inc.**
- Spun out certain royalties, precious metals streams, and payment agreements to **Maverix Metals Inc.**, realizing value for assets embedded within Pan American's portfolio while providing potential for future value appreciation through Pan American's ownership in Maverix Metals Inc.
- Monetized the majority of Pan American's interest in **Compania Minera Shalipayco SAC**, while retaining a free carry of our remaining 25% interest to commercial production in this large zinc development project.
- Successfully **completed Project Access in Bolivia with Global Affairs Canada**, improving quality of life and economic independence for 482 families near our San Vicente mine.
- Centro Mexicano para la Filantopia (CEMEFI) awarded all of Pan American's Mexican mines with the **Socially Responsible Company (ESR) designation.**

[1] Target amount per guidance included in the annual Management's Discussion & Analysis for fiscal 2015 dated March 24, 2016.

[2] Cash Costs and AISCSOS are Non-GAAP measures; see the Alternative Performance (Non-GAAP Measures) section in the Management's Discussion & Analysis on page 54. Cash costs and AISCSOS guidance for 2017 are based on the following metal price and exchange rate assumptions: $17.00 per ounce of silver, $1,200 per ounce of gold, $2,500 per tonne of zinc, $2,100 per tonne of lead, and $5,400 per tonne of copper, 20 Mexican pesos per US dollar, 3.30 Peruvian soles per US dollar, 17.05 Argentine pesos per US dollar, 7 Bolivian bolivianos per US dollar.

[3] 2016 actuals differ from targets mainly due to increased exploration and machinery purchases for sustaining capital, and timing of expenditures for project capital.

[4] See pages 73 to 74 for complete reserves and resources information.

2017 Objectives

- Complete the **underground development at La Colorada** to open new production areas and achieve ore mining rates of 1,800 tonnes per day by the end of 2017.
- Complete construction of the **pulp agglomeration plant at the Dolores mine** and achieve ore mining rates of 1,500 tonnes per day at the underground mine.
- Invest $21 million in **near-site and regional exploration.**
- Complete technical studies for the **Joaquin project** in Argentina to determine how much of the high-grade portion of Joaquin's mineralized material can be economically treated at our Manantial Espejo mine.
- Transition **Alamo Dorado mine** to the reclamation phase.
- **Achieve zero fatalities** through the fatality reduction program.
- Continue to improve our environmental and social performance by **implementing the Towards Sustainable Mining protocols and guidelines** as part of our membership in the Mining Association of Canada.

To learn more about our sustainability goals and achievements, please visit our most recent Sustainability Report website at: www.panamericansilver.com/sustainability

Chairman's Message

What a difference a year makes! One year ago, at the dawn of 2016, silver and gold prices reached a five-year low. Pan American Silver's shares hit their lowest price since 2003. Market sentiment towards precious metals was certainly bearish. Yet as the year progressed, silver and gold prices rallied and Pan American's shares more than doubled in price. This gratifying result was not simply due to higher silver prices – it also reflects the significant reduction in operating costs that resulted from a multi-year effort to re-think and re-configure Pan American's higher cost mines into lower cost operations.

> "Pan American will continue to deliver value to investors desiring enhanced exposure to silver.

The combination of higher revenues and lower costs resulted in a dramatic improvement in operating cash flow in 2016. Pan American enters 2017 in a solid financial position with a declining capital spending profile from the pending completion of the expansion projects in Mexico. Given the recent performance and the improved outlook for the Company, the Board of Directors has determined that an increase in the dividend was warranted; we declared a dividend of $0.025 per common share for the first quarter of 2017 – double the previous dividend of $0.0125 per common share approved for the fourth quarter of 2016.

In 2016, Michael Steinmann was appointed as Pan American's CEO, following Geoff Burns' retirement after 13 years of service to the Company. Geoff continues to add value for Pan American through his leadership of a new royalty company, Maverix Metals Inc., in which Pan American held an interest of approximately 40% at the end of 2016. Michael has been with Pan American for more than 12 years, and has earned tremendous respect for his work ethic, team management and value creation for Pan American shareholders. I cannot be more pleased with his performance as Pan American's third CEO since the Company was founded in 1994. Michael is supported by a talented group of engineers, geologists, technicians, miners, accountants, and support staff.

Pan American's family of employees and contractors produced the positive financial results delivered in 2016, and are the reason for the Company's stellar reputation.

Pan American's mission is: "To create value through excellence in discovery, engineering, innovation and sustainable development." I think 2016 was an excellent example of a year in which we delivered on that mission. We discovered more silver ounces and stepped up our near mine-site and green field exploration programs. We redesigned our mining methods at our former high-cost mines in Peru, resulting in dramatic and long-term cost reductions. We innovated across our operations from our head office to our most remote locations. And we continued our industry-leading mine safety programs, environmental management and community engagement. We value the relationships we have developed with our communities and employees because they are so important to our success.

I believe silver prices have begun a new, long-term bull market and I expect Pan American will continue to deliver value to investors desiring enhanced exposure to silver. I mean "enhanced" because higher silver prices improve both our income statement in terms of our revenues, and our balance sheet in terms of the capital value of our silver reserves and resources. Investors simply cannot gain that double exposure by investing in silver ETFs or silver streaming companies. Pan American has large silver reserves and resources and offers exceptional leverage to higher silver prices. Our silver resources include the substantial resource at our Navidad project in Argentina. Argentina has taken positive and meaningful steps to improve its fiscal system, and I look forward to working with the Province of Chubut and the national government to develop Navidad into a world-leading silver mine that will deliver value to all our stakeholders.

I wish to acknowledge and thank the many people who were responsible for our excellent results in 2016 - the thousands of employees and contractors who work tirelessly at our operations and offices, the governments and communities where we work, our Board of Directors for their guidance on strategy and governance, and all our other project partners.

I look forward to another great year for Pan American Silver in 2017.

Respectfully submitted,

Ross Beaty, *Chairman*
March 22, 2017

2016 Highlights

$214.8 M	6,659	555,860
Net cash generated from operating activities	Total employees and contractors across our operations	Hours of safety training with teams across our operations

President’s Message

Dear Shareholders,

When Pan American set its vision more than 20 years ago to provide investors with the best vehicle to gain exposure to silver, we had only one mine in South America that produced less than a million ounces of silver per year. Today, we operate seven mines in four countries and produce about 25 million ounces of silver annually, making Pan American the world’s second largest primary silver producer. We are proud of what we have achieved, and we remain committed to our vision. We believe the market for silver is strong and growing, supported both by silver as a store of value and the expanding use in industrial applications.

> “The robust cash flow we generated in 2016 fortified a balance sheet that is among the best in the industry.

Further, we believe that Pan American is best positioned to deliver the value of an investment in silver. We have proven expertise in building and operating profitable mines. We have a portfolio of quality assets diversified throughout Mexico and South America. And, we have proven and probable silver reserves totaling 286 million ounces.[1] Our aim is to build on that position of strength in the coming years.

Strong 2016 performance

In 2016, Pan American achieved strong operating and financial results, beating our original guidance for production and cash costs. Silver production totaled 25.4 million ounces at cash costs[2] of $6.29, down 35% from 2015. All-in sustaining costs[2] of $10.17 were down 32% from 2015.

The reduction in 2016 costs primarily reflects improved productivity. Over the last several years we have invested in mechanization of our mines in Peru, resulting in structurally lower costs at those operations. Similarly, the recent investment in new infrastructure at our La Colorada and Dolores mines will contribute to lower operating costs at those mines.

The impressive performance on costs combined with increased metal prices drove higher profitability. Net earnings topped $100 million, or $0.66 per share, in 2016. Net cash generated from operating activities of approximately $215 million was more than double what we had generated in 2015. The robust cash flow generation fortified a balance sheet that is among the best in the industry. Cash and cash equivalents at year-end totaled approximately $218 million while total debt declined to approximately $43 million.[2]

Maintaining a strong balance sheet is core to Pan American’s strategy, enabling us to manage the volatility of precious metal prices on our cash flows, providing us with the capacity to invest in our business during low points in the cycle and avoiding equity dilution.

Improving operating margins through mine expansions

We expect the expansions of our La Colorada and Dolores mines in Mexico to result in higher production rates and lower costs at both operations. We proceeded with these expansions during a downturn in the silver market, which gave us access to the best expertise in their construction.

The new mine shaft and sulphide processing plant at La Colorada were completed last year approximately 5% under budget and ahead of schedule. We will continue to advance development of the underground mine through 2017. By the end of this year, we expect processing rates to average 1,800 tonnes per day, resulting in annual silver production from La Colorada of about 7.7 million ounces in 2018.

The expansion at Dolores remains on budget and on schedule. We are targeting mid-2017 for commissioning of the pulp agglomeration plant, and year end for achieving designed processing rates at the new underground mine. The Dolores expansion is expected to increase silver and gold production through a combination of greater throughput and higher recoveries with associated operational efficiencies helping to reduce cash costs.

Our investment in expansions at La Colorada and Dolores contribute to a more stable, stronger Pan American, better able to generate attractive returns for shareholders throughout the silver price cycle.

A diversified portfolio of producing assets

The increased production from La Colorada and Dolores should more than offset the expected declines from Alamo Dorado and Manantial Espejo.

The Alamo Dorado mine has reached the end of its life and we will complete processing of the stockpile inventory during the first quarter of this year. Over the 10 years we operated this mine, it generated close to $400 million in operating free cash flow, providing an excellent return to our shareholders.

At Manantial Espejo, we expect to complete open-pit mining this year while underground mining will continue into 2019. Early in 2017, we acquired the Joaquin project, which is 145 kilometres from Manantial Espejo and offers synergies with our current operation. Processing capacity is available at the Manantial Espejo plant, and Joaquin is within trucking distance.

Our mines in Peru, Morococha and Huaron, are long-life, steady-state operations. The investment in the mechanization of those mines will provide sustained benefits for many years to come.

Within Pan American's portfolio of assets, we had interests and royalties that were acquired or created over time as part of other transactions. The market did not assign any value to these assets because they were not core to our operations. In 2016, we pursued several initiatives to extract value for these assets.

The first was the sale of certain royalties, precious metals streams, and payment agreements to Maverix Metals Inc. At the end of 2016, Pan American held an approximate 40% (43% fully diluted) interest in Maverix, retaining upside exposure to these assets and to Maverix's ability to grow and diversify the portfolio.

Our investment in expansions at La Colorada and Dolores contribute to a more stable, stronger Pan American, better able to generate attractive returns for shareholders throughout the silver price cycle.

The second transaction was the sale of 75% of our shares in Compañia Minera Shalipayco S.A.C. to Votorantim Metals, Compañia Minera Milpo S.A. ("Votorantim") for $15 million in cash and a 1% net smelter return royalty. In addition, Votorantim will provide Pan American with a free carry of its remaining 25% ownership interest to commercial production in this large zinc development project located in Peru.

A path to growth

In 2017, we plan to invest $21 million in exploration, up 45% from 2016, with the objective of cultivating new growth prospects. We have a successful track record of replacing production with new reserves, most notably at La Colorada where we have increased reserves by 200% since 2010. We are actively exploring at all of our operating mine sites to replace production and grow reserves. As well, we continue to invest in new exploration targets.

Of course, our Navidad project in southern Argentina has the greatest potential to transform our company. Over the past year, Argentina's federal government has indicated support for responsible mining development, however, open-pit mining must be approved by the Province of Chubut to enable Pan American to develop this resource. For Pan American shareholders, Navidad provides potential upside to one of the largest undeveloped silver deposits in the world.

Outlook for silver

Over 2016, silver prices averaged $17.14 per ounce, up 9% from 2015 but well below the five-year average of $21.29 per ounce. Silver prices reflect both investor sentiment and industrial demand. As a safe-haven asset class, investors seek precious metals as a store of value in uncertain and turbulent macro-economic environments.

Silver also has a strong underpinning from industrial demand, which represents just under half of the total demand for silver. The use of technology, electronics and renewable sources of power is growing in our modern world, and the silver required for these applications is increasing. For example, silver demand from the photovoltaics industry (generating electricity from solar cells) now represents 14% of silver's industrial demand, up from only 1% a decade ago.

On the supply side, there has been little to no growth in silver because many exploration companies have responded to the precious metals' bear market cycle of the last few years by not investing in exploration and new projects. In fact, total physical demand for silver outstripped total physical supply in 2016 for the 4th year in a row.[3]

Grounded in experience, vision for the future

While there are several ways to gain exposure to the silver price, Pan American provides not only exposure to the commodity, but the potential for enhanced shareholder value through a proven track record of developing silver resources. In 2016, that translated into a total return to our shareholders of about 133%.[4]

Pan American has an experienced management team, a geographically diverse portfolio with successful reserve replacement, and exploration potential. We are focused on prudent financial management to protect and create value for shareholders throughout the silver price cycle.

Our leadership team has been in place for nearly a decade, garnering us a well-deserved reputation as a responsible and accomplished mine builder and operator.

We are also committed to being a leader in environmental and social responsibility. In 2016, we joined the Mining Association of Canada and its Towards Sustainable Mining program to support our efforts in this area. Local communities are important stakeholders in our business and we aim to foster respectful, mutually beneficial relationships with them. More information on our corporate social responsibility performance is available on our website.

Our record of success is a reflection of our team and the many employees across our organization. These individuals helped deliver the strong operating performance in 2016 and are core to our future success. I wish to extend my appreciation for their efforts over the past year.

Pan American also benefits from a Board of Directors with diverse experience and credentials, chaired by a leader in the mining business, Mr. Ross Beaty.

I have been a member of Pan American's team since 2004, and participated in the development of all our currently operating mines. Appointed as CEO in January 2016, I am excited to be leading the company as we fulfill our vision of being the world's pre-eminent silver producer.

(signed)

Michael Steinmann, *President and CEO*
March 22, 2017

[1] For complete reserves and resources information see pages 73 to 74.
[2] Cash Costs, AISCSOS and Total Debt are Non-GAAP measures; see the Alternative Performance (Non-GAAP Measures) section in the Management's Discussion & Analysis on page 54.
[3] Source: Thomson Reuters GFMS, November, 2016.
[4] Source: FactSet. Total Shareholder Return calculated as share price change on Nasdaq plus reinvestment of dividends paid over 2016.

Management’s Discussion and Analysis

for the year ended December 31, 2016

TABLE OF CONTENTS

Introduction 12

Core Business and Strategy 13

2016 Highlights and Key Notes 14

2017 Operating Outlook 15

Mid-Term Outlook 21

2016 Operating Performance 21

2016 Project Development Update 36

Overview of 2016 Financial Results 37

Liquidity Position 50

Capital Resources 50

Financial Instruments 51

Closure and Decommissioning Cost Provision 52

Contractual Commitments and Contingencies 53

Related Party Transactions 53

Alternative Performance (non-GAAP) Measures 54

Risks and Uncertainties 61

Significant Judgments and Key Sources of Estimation Uncertainty in the Application of Accounting Policies 66

Changes in Accounting Standards 69

Corporate Governance, Social Responsibility, and Environmental Stewardship 70

Disclosure Controls and Procedures 72

Mineral Reserves and Resources 73

MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

March 22, 2017

Introduction

This Management’s Discussion and Analysis (“MD&A”) is intended to help the reader understand the significant factors that have affected the performance of Pan American Silver Corp. and its subsidiaries (collectively “Pan American”, “we”, “us”, “our” or the “Company”) and such factors that may affect its future performance. This MD&A should be read in conjunction with the Company’s audited consolidated financial statements for the year ended December 31, 2016 (the “2016 Financial Statements”) and the related notes contained therein. All amounts in this MD&A and in the 2016 Financial Statements are expressed in United States dollars (“USD”), unless identified otherwise. The Company reports its financial position, results of operations and cashflows in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board . Pan American’s significant accounting policies are set out in Note 2 of the 2016 Financial Statements.

This MD&A refers to various non-Generally Accepted Accounting Principles (“non-GAAP”) measures, such as “all-in sustaining cost per silver ounce sold", “cash costs per ounce of silver”, "total debt", “working capital’, “general and administrative cost per silver ounce produced”, “adjusted earnings” and “basic adjusted earnings per share”, which are used by the Company to manage and evaluate operating performance at each of the Company’s mines and are widely reported in the mining industry as benchmarks for performance, but do not have standardized meaning. To facilitate a better understanding of these non-GAAP measures as calculated by the Company, additional information has been provided in this MD&A. Please refer to the section of this MD&A entitled “Alternative Performance (Non-GAAP) Measures” for a detailed description of “all-in sustaining cost per silver ounce sold”, “cash costs per ounce of silver”, “working capital”, “general and administrative cost per silver ounce produced”, “adjusted earnings“ and “basic adjusted earnings per share”, as well as details of the Company’s by-product credits and a reconciliation of these measures to the 2016 Financial Statements.

Any reference to “cash costs” or “cash costs per ounce of silver” in this MD&A should be understood to mean cash costs per ounce of silver, net of by-product credits. Any reference to “AISCSOS” in this MD&A should be understood to mean all-in sustaining costs per silver ounce sold, net of by-product credits.

Except for historical information contained in this MD&A, the following disclosures are forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 and forward-looking information within the meaning of applicable Canadian provincial securities laws or are future oriented financial information and as such are based on an assumed set of economic conditions and courses of action. Please refer to the cautionary note regarding forward-looking statements and information at the back of this MD&A and the “Risks Related to Pan American’s Business” contained in the Company’s most recent Annual Information Form on file with the Canadian provincial securities regulatory authorities and Form 40-F on file with the U.S. Securities and Exchange Commission (the “SEC”). Additional information about Pan American and its business activities, including its Annual Information Form, is available on SEDAR at www.sedar.com

CORE BUSINESS AND STRATEGY

Pan American engages in silver mining and related activities, including exploration, mine development, extraction, processing, refining and reclamation. The Company owns and operates silver mines located in Peru, Mexico, Argentina, and Bolivia. In addition, the Company is exploring for new silver deposits and opportunities throughout North and South America. The Company is listed on the Toronto Stock Exchange ("TSX") (Symbol: PAAS) and on the Nasdaq Global Select Market ("NASDAQ") in New York (Symbol: PAAS).

Pan American's vision is ***to be the world's pre-eminent silver producer, with a reputation for excellence in discovery, engineering, innovation and sustainable development***. To achieve this vision, we base our business on the following strategy:

- *Generate sustainable profits and superior returns on investments through the safe, efficient and environmentally sound development and operation of silver assets*
- *Constantly replace and grow our mineable silver reserves and resources through targeted near-mine exploration and global business development*
- *Foster positive long-term relationships with our employees, our shareholders, our communities and our local governments through open and honest communication and ethical and sustainable business practices*
- *Continually search for opportunities to upgrade and improve the quality of our silver assets both internally and through acquisition*
- *Encourage our employees to be innovative, responsive and entrepreneurial throughout our entire organization*

To execute this strategy, Pan American has assembled a sector-leading team of mining professionals with a depth of knowledge and experience in all aspects of our business, which enables the Company to confidently advance early stage projects through construction and into operation.

Pan American is determined to conduct its business in a responsible and sustainable manner. Caring for the environment in which we operate, contributing to the long-term development of our host communities and ensuring that our employees can work in a safe and secure manner are core values at Pan American. We are committed to maintaining positive relations with our employees, the local communities and the government agencies, all of whom we view as partners in our enterprise.

2016 HIGHLIGHTS

OPERATIONS & PROJECT DEVELOPMENT

- ***Silver Production of 25.42 Million Ounces***

Pan American produced 25.42 million ounces in 2016 compared with 26.12 million ounces in 2015. The anticipated decrease in production reflected declining stockpile grades at Alamo Dorado, open-pit mining nearing completion at Manantial Espejo, and mine sequencing into lower silver grade ore at Dolores.

- ***Record Gold Production of 183.9 Thousand Ounces***

The Company set a new annual gold production record in 2016, producing 183.9 thousand ounces of gold, compared with 183.7 thousand ounces in 2015. Gold production increases at Dolores were partially offset by decreases at Manantial Espejo and Alamo Dorado.

- ***Reduced Annual Cash Costs Lower than Forecast***

The Company recorded consolidated cash costs of $6.29 per payable ounce of silver, a 35% reduction from 2015 cash costs of $9.70 per payable ounce of silver. Cash costs were significantly lower than our initial 2016 forecast of $9.45 to $10.45 per ounce, and within the November 14, 2016 revised 2016 forecast of $6.25 to $7.00 per ounce. The 2016 decrease reflected increased by-product credits, the benefit of export incentives at Manantial Espejo and lower direct operating costs.

- ***Progress on the La Colorada & Dolores Expansion Projects***

Pan American achieved significant progress in the expansion of its La Colorada and Dolores mines in Mexico during 2016. At the La Colorada mine, the new mine shaft and sulphide ore processing plant both began operating in the third quarter of 2016. The new 115kV power line to La Colorada is targeted for completion in the second quarter of 2017, and additional development headings in the underground mine are advancing to enable increased ore mining rates up to the designed 1,800 tonnes per day ("tpd") by the end of 2017. The La Colorada expansion project is expected to increase annual silver production at La Colorada to approximately 7.7 million ounces in 2018, while also significantly increasing zinc and lead production.

At Dolores, construction of the pulp agglomeration plant is approximately 65% complete and development of the new underground mine is advancing towards delivering first ore by the end of 2017. The Dolores expansion is expected to increase silver and gold production at Dolores through a combination of greater throughput and higher recoveries, with associated operational efficiencies helping to reduce cash costs.

- ***Mineral Reserve Replacement***

As at December 31, 2016 Pan American's mineral reserves were estimated to contain approximately 286 million ounces of silver and 2.0 million ounces of gold compared with 280 million ounces of silver and 2.1 million ounces of gold at December 31, 2015. For complete reserves and resources information see the Reserves and Resources section of this MD&A.

FINANCIAL

- ***Increased Revenues, Net Earnings, and Cash Generated from Operating Activities***

2016 revenue of $774.8 million was $100.1 million or 15% higher than in 2015, largely a result of higher metal prices. Realized silver prices per ounce averaged $17.35 for 2016 compared with $15.53 during 2015. Net earnings were $101.8 million ($0.66 basic earnings per share) in 2016 compared with a net loss of $231.6 million ($1.49 basic loss per share) in 2015. The increase in net earnings reflects higher revenue, lower production costs, no 2016 impairment charges and gains from the sale of the Company's interest in Shalipayco to Votorantim Metais - Cajamarquilla S.A. ("Votorantim") and the sale of certain assets to Maverix Metals Inc. ("Maverix"), partially offset by higher income taxes. Net cash generated from operating activities in 2016 of $214.8 million was more than double the $88.7 million generated in 2015. Strong operating cash flow facilitated the continued return of value to shareholders in 2016 by way of $7.6 million in dividend payments.

- ***Strong Liquidity and Working Capital Position***

The Company had cash and short-term investment balances of $217.6 million and working capital of $428.6 million as at December 31, 2016. The Company's total debt outstanding was $43.3 million at the end of 2016. The Company also had $263.8 million undrawn and available under its revolving credit facility as of December 31, 2016.

- ***Reduced All-in Sustaining Costs per Silver Ounce Sold Lower than Forecast***

Consolidated AISCSOS of $10.17 was down 32% compared with $14.92 in 2015 and was lower than the initial 2016 forecast of $13.60 to $14.90, and also lower than the revised full year 2016 guidance of $10.75 to $11.50 issued on November 14, 2016. The decrease in AISCSOS mainly reflects increased by-product credits, lower production costs, positive inventory net realizable valuation ("NRV") adjustments at Manantial Espejo and Dolores, and export incentives at Manantial Espejo.

2017 OPERATING OUTLOOK

These estimates are forward-looking statements and information that are subject to the cautionary note associated with forward-looking statements and information at the end of this MD&A.

2017 Silver Production, Cash Costs and AISCSOS Forecasts:

	Silver Production (million ounces)	Cash Costs per ounce [1]	AISCSOS [1]
La Colorada	6.40 - 6.90	3.35 - 3.95	5.00 - 5.90
Dolores	4.00 - 4.50	1.25 -2.25	11.00 - 12.50
Alamo Dorado	0.25 - 0.30	18.00 -20.00	18.40 - 19.40
Huaron	3.65 -3.80	5.95 -6.95	9.25 - 10.50
Morococha (92.3%)[2]	2.50 -2.60	3.15 -4.15	8.25 - 9.75
San Vicente (95.0%)[2]	4.40 -4.50	10.90 -11.90	13.80 - 14.80
Manantial Espejo	3.30 - 3.40	15.35 -16.25	16.90 - 18.10
Consolidated Total	**24.50 -26.00**	**6.45 -7.45**	**11.50 - 12.90**

[1] Cash costs per ounce and AISCSOS are non-GAAP measurements. Please refer to section "Alternative Performance (Non-GAAP) Measures" for a detailed reconciliation of how these measures are calculated. The cash cost forecasts assume by-product credit prices of $2,500/tonne ($1.13/lb) for zinc, $2,100/tonne ($0.95/lb.) for lead, $5,400/tonne ($2.45/lb.) for copper, and $1,200/oz. for gold.

[2] Reflects Pan American's ownership in the operation.

The Company expects to produce between 24.50 million and 26.00 million ounces of silver in 2017, roughly similar to 2016 consolidated production of 25.42 million ounces, with expected production increases at La Colorada and Dolores offset by cessation of operations at Alamo Dorado.

Dolores' 2017 silver production is expected to increase from 2016 levels driven by higher stacking rates and recoveries following the commissioning of the agglomeration circuit during the second half of 2017. At La Colorada, the new mineshaft commissioned in the third quarter of 2016 is expected to lead to an increase in the annual silver production, as mining and milling rates gradually ramp up towards 1,800 tpd by year-end for an approximately 13% to 20% increase in annual throughput rate compared to 2016. Silver production at the Company's other operations in 2017 is expected to be broadly consistent with that achieved in 2016.

Consolidated cash costs for 2017 are forecast to be between $6.45 and $7.45 per payable ounce of silver, net of by-product credits, slightly higher than 2016 cash costs of $6.29 per ounce. The Company expects cash costs to decrease at the La Colorada mine, offset by increases at Manantial Espejo as by-product gold credits are expected to decline, and at Dolores where higher operating costs associated with the commissioning and start-up of the new pulp agglomeration circuit are expected in the second half of 2017. It is expected that the improved recoveries realized from the pulp agglomeration circuit and higher throughputs will ultimately reduce both Dolores and consolidated cash costs. 2017 Cash costs at the remaining operations are anticipated to be relatively steady.

Consolidated AISCSOS in 2017 is forecast to be between $11.50 and $12.90 , compared to the 2016 annual consolidated AISCSOS of $10.17 (which included NRV inventory adjustments that reduced AISCSOS by $1.77 per ounce). Consolidated AISCSOS is expected to remain at similar levels in 2017, as slightly lower forecast sustaining capital is expected to be offset by slightly higher exploration expenses.

2017 By-product Production Forecasts:

	Gold (koz)	Zinc (kt)	Lead (kt)	Copper (kt)
La Colorada	3.3 - 3.5	14.0 - 14.5	7.5 -7.8	—
Dolores	109.1 - 115.0	—	—	—
Alamo Dorado	1.4 - 1.5	—	—	0.01
Huaron	0.3 - 0.4	16.0 -16.5	7.2 - 7.4	6.0 - 6.2
Morococha [1]	2.9 - 3.1	20.2 -21.0	4.0 - 4.5	2.1 - 2.4
San Vicente [1]	0.5 - 0.55	6.3 -6.5	0.3 - 0.3	0.7
Manantial Espejo	37.5 - 41.0	—	—	—
Consolidated Total	**155.0 -165.0**	**56.5 -58.5**	**19.0 - 20.0**	**8.8 - 9.3**

[1] Reflects Pan American's ownership in the operation.

2017 gold production is expected to be between 155.0 and 165.0 thousand ounces, down from the 183.9 thousand ounces produced in 2016. The anticipated decrease is due to lower gold grades at Manantial Espejo and cessation of operations at Alamo Dorado, only partially offset by higher gold production from Dolores. Zinc production is expected to increase in 2017, specifically at La Colorada and Morococha, which should more than offset a decrease in zinc production at Huaron. Lead production is expected to remain stable in 2017, with increases at La Colorada and Morococha offset by an expected decrease at Huaron. The expected increase in base metal production at La Colorada reflects the increased throughput from the new sulphide plant, while the expected increases at Morococha are driven by higher than expected zinc and lead grades. Copper production in 2017 is expected to decrease from 2016 levels, as Morococha mine sequencing shifts out of the Esperanza high-grade copper ore body into other zones with higher zinc and lead content.

2017 Capital Expenditure Forecasts

In 2017, Pan American expects sustaining capital investments of between $82.0 million and $88.0 million, comparable to the $89.4 million of sustaining capital invested in 2016. In addition, Pan American expects to invest between $58.0 million and $62.0 million to complete the expansion projects at La Colorada and Dolores. The following table details the forecast capital investments at the Company's operations and projects in 2017:

	2017 Forecast Capital Investment ($ millions)
La Colorada	10.5 - 11.5
Dolores	39.0 - 40.0
Huaron	8.0 - 9.0
Morococha	9.0 - 10.0
San Vicente	12.0 - 13.0
Manantial Espejo	3.5 - 4.5
Sustaining Capital Total	**82.0 - 88.0**
La Colorada projects	6.5 - 7.5
Dolores projects	51.5 - 54.5
Project Capital Total	**58.0 - 62.0**
Consolidated Total	**140.0 - 150.0**

Major components of the 2017 sustaining capital include:

- Dolores - approximately $20.0 million for pre-stripping activities and $15.4 million in equipment replacements, rehabilitations, and leach pad and solution-pumping expansion works.
- Morococha - approximately $4.1 million in underground mine equipment additions, replacements and overhauls.
- La Colorada - approximately $3.7 million in ventilation raises, ore passes, equipment replacements and overhauls, and approximately $3.5 million in tailings facility expansion work.
- San Vicente - approximately $4.0 million for tailings facility expansion.
- Approximately $11.5 million combined total to be spent on near mine exploration.

See the "2017 Mine Operations Forecasts" section of this MD&A for further details.

Project capital expenditures in 2017 consist of:

Between $51.5 million and $54.5 million to complete the expansion of the Dolores mine, allocated as follows:

- Approximately $30.0 million to complete and commission the new pulp agglomeration plant. Major equipment installation has commenced and the start-up of the new plant is scheduled for mid-2017.
- Approximately $21.0 million to develop the underground mine. The current mine plan reflects production commencing from the underground stoping areas towards the end of 2017.
- Approximately $1.0 million to complete the installation of a new overland conveyor on leach pad 3, which was 75% complete at the end of 2016.

The remaining $6.5 million to $7.5 million will be directed to complete the La Colorada mine expansion:

- completing the installation of a new powerline to the site;
- continued development of the underground mine; and
- installing a cyanide neutralization plant to help reduce capital and operating expenditures for future tailings facility expansions, as well as to provide environmental benefits.

2017 General and Administrative Cost Forecast

Our 2017 general and administrative costs ("G&A") are expected to be approximately $22.5 million, 5% lower than our 2016 G&A. This figure is subject to fluctuations in the Canadian dollar ("CAD") to USD exchange rate, the Company's share price performance, which impacts share based compensation expense, and the Company's ability to allocate certain costs incurred at head office that are directly attributable to operating subsidiaries.

The following table compares our 2017 forecast G&A against those incurred over the previous two years, as well as G&A on a per ounce of silver produced basis, which is a non-GAAP measure.

	Forecast	Actual	
	2017	2016	2015
General and administrative costs (in '000s of USD)	$ 22,500	$ 23,663	$ 18,027
Silver production (in '000s of ounces) [(1)]	25,250	25,419	26,119
General and administrative costs per silver ounce produced [(2)]	$ 0.89	$ 0.93	$ 0.69

[(1)] Forecast silver production at the mid-point of the guidance given in this MD&A for the Company's existing operations.

[(2)] G&A cost per silver ounce produced is a non-GAAP measure used by the Company to assess G&A costs relative to production. It is calculated as G&A costs divided by total ounces of silver production in the period.

2017 Exploration and Project Development Expense Forecast

Exploration expenses for Pan American in 2017 are expected to total approximately $15.7 million, which is a $4.4 million increase from 2016 exploration expenses of $11.3 million. The increase is driven by additional spending at La Negra as part of the option agreement with Kootenay Silver Inc. and increased surface drilling at Morococha and Huaron. Exploration will continue to include advancing surface exploration on targets defined for certain Mexican and Peruvian properties, as well as holding costs for various exploration properties, including Navidad.

2017 Mine Operation Forecasts

Management's expectations of each mine's operating performance in 2017 are set out below, including discussion on expected production, cash costs, capital expenditures and AISCSOS.

• *La Colorada mine*

Forecast 2017 silver production of between 6.4 million to 6.9 million ounces is 10% to 19% higher than the 5.8 million ounces produced in 2016. The 2017 mine plan contemplates a mining and milling rate that increases towards 1,800 tpd by the end of the year as the new sulphide plant, underground developments and shaft are phased into production. Included in the overall processing rates, oxide ores will continue to be mined and processed in the oxide leach plant at the current rate of 400 tpd. Concentrate production from sulphide ores mined and processed through the new sulphide processing plant makes up the balance of production. With increased sulphide ore tonnages processed in 2017, it is expected that base metal by-product production will increase substantially relative to 2016 levels with zinc increasing by 23% to 27% and lead increasing by 25% to 30%.

Forecast 2017 cash costs per ounce of between $3.35 and $3.95 are expected to be 36% to 46% lower than the $6.15 recorded in 2016. The drop in expected cash costs reflects the benefits from the expansion combined with higher by-product credits per ounce due to higher zinc and lead production and higher base metal price expectations.

Planned sustaining capital expenditures of $10.5 million to $11.5 million are expected to be relatively similar to the 2016 level of $10.5 million. The major elements making up the 2017 sustaining capital plan are: $3.7 million in mine related capital, the largest components being a ventilation raise, additional ore passes, and equipment replacements and overhauls; $3.5 million in tailings facility expansion work; $1.4 million in near mine exploration; and $1.0 million in camp improvements.

AISCSOS for 2017 is expected to be between $5.00 and $5.90, significantly lower than the $7.49 AISCSOS reported in 2016. The expected benefits of the mine expansion described above, with higher by-product credits, and better cost productivity, are primarily responsible for the decrease.

Capital expenditures relating to the expansion project for the La Colorada mine are expected to be $6.5 million to $7.5 million in 2017. Please see the "2017 Capital Expenditure Forecast" section for a detailed description of these expenditures.

• *Dolores mine*

Stacking rates at Dolores are expected to average 17,600 to 18,000 tpd onto leach pads in 2017, a 2% to 4% increase from the 17,230 tpd achieved in 2016 due to the commissioning of the agglomeration circuit during the second half of 2017. The ore processed in 2017 is expected to have similar silver and gold grades; however, recoveries are expected to increase due to the enhanced ratio of ounces produced to ounces placed from pulp agglomeration during the later half of the year. The silver production for 2017 is thus expected to increase to between 4.0 million and 4.5 million ounces (between 4% and 17% increase) from 3.8 million ounces produced in 2016. Similarly, gold production is expected to increase by 6% to 12% to between 109.1 koz and 115.0 koz.

Cash costs are expected to increase to between $1.25 to $2.25 per ounce from the 2016 level of negative $1.08 per ounce, largely due to the cost associated with the pulp agglomeration plant commissioning.

Sustaining capital expenditures are forecast between $39.0 million to $40.0 million, consistent with the $40.4 million invested during 2016 (the 2016 sustaining capital cash outflows of $48.1 million were higher than the $40.4 million invested due to the timing of cash payments for the capital investments). The majority of the 2017 sustaining capital is in mine related capital, which is primarily comprised of: $20.0 million for pre-stripping activities; $7.0 million in equipment replacements and rehabilitations; $8.4 million in leach pad and solution pumping expansion works; $2.3 million in various projects including electrical system upgrades, crusher dust suppression system upgrades, and other equipment replacements and refurbishments; and $1.2 million on camp and ancillary upgrades.

AISCSOS for 2017 is expected to be between $11.00 and $12.50, compared to the 2016 AISCSOS of $8.29 (which included NRV inventory adjustments that reduced AISCSOS by $5.85 per ounce). Excluding the effect of 2016 NRV adjustments, AISCSOS is expected to decrease from those in 2016 due primarily to the lower sustaining capital investments described above and increased silver and gold production.

Expansion project capital is expected to total $51.5 million to $54.5 million in 2017. Please see the "2017 Capital Expenditure Forecast" section for a detailed description.

• *Alamo Dorado mine*

The Company expects to process stockpiles at the Alamo Dorado mine for the first few months of 2017 while intensive mine reclamation efforts proceed. A total cost of $4.3 million for reclamation activities is expected in 2017, spread relatively evenly throughout the year, compared with $4.7 million spent during 2016.

• *Huaron mine*

Throughput rates in 2017 are expected to remain consistent with the record-breaking mining and processing rates achieved in 2016. Silver grades and recoveries in 2017 are expected to be roughly in-line with 2016 operating metrics, resulting in stable silver production levels, with 2017 forecast production of between 3.65 million and 3.80 million ounces compared to the 3.81 million ounces produced in 2016. Lead and zinc production are expected to decline year-over-year due to lower grades and recoveries anticipated in 2017.

Cash costs per ounce of between $5.95 and $6.95 are forecast, which is a slight increase from the 2016 level of $5.79 per ounce, primarily driven by higher operating costs as a result of an increase in underground mine advances, greater power consumption and modest wage and cost escalations. These increases are expected to be partially offset by improved base metal prices resulting in larger by-product credits, and improved concentrate treatment terms.

2017 sustaining capital expenditures of between $8.0 million and $9.0 million are expected to be lower than the $12.0 million in 2016. In 2017, sustaining capital is primarily comprised of: $1.9 million in near mine diamond drilling; $1.6 million for camp upgrades; $1.8 million in equipment additions, replacements and overhauls; and $0.8 million in raise bore developments.

AISCSOS for 2017 is expected to be between $9.25 and $10.50, representing a 6% to 17% decrease from the $11.11 reported in 2016, due primarily to lower sustaining capital expenditures.

• *Morococha mine*

Throughput rates in 2017 are expected to be consistent with the record-breaking mining and processing rates achieved in 2016, while silver grades and recoveries remain similar year-over-year, resulting in consistent silver production. The 2017 forecast silver production is between 2.50 million and 2.60 million ounces, compared to the 2.54 million ounces produced in 2016. However, zinc and lead production are expected to significantly increase while copper production declines in 2017 compared with 2016, as a result of mine sequencing shifting towards zinc and lead-rich zones from copper-rich zones. Zinc and lead grades are expected to increase by approximately 20% and 36% year-over-year, respectively, while copper grades decrease by 65%, with recoveries following the same trends.

Cash costs are anticipated to decrease by up to 25% to between $3.15 and $4.15 per ounce in 2017, primarily as a result of higher base metal by-product credits, and better treatment and refining charges ("TCRC"), partially offset by higher operating costs. Operating costs are expected to increase by approximately 8% primarily due to an increase in underground mine advances, greater maintenance costs and modest wage and supply cost escalations.

Morococha's expected sustaining capital of $9.0 million to $10.0 million for 2017 is 8% to 17% lower than the $10.9 million for 2016. The planned 2017 sustaining capital expenditures include: $4.1 million in underground mine equipment additions, replacements and overhauls; $2.2 million for near mine exploration; and $1.7 million for raise bore developments.

AISCSOS for 2017 is expected to be between $8.25 and $9.75, roughly consistent with the $9.32 reported in 2016, primarily due to the expected decrease in sustaining capital and increase in by-product production levels being offset by higher operating costs.

- ***San Vicente mine***

Throughput rates, silver grades and recoveries are expected to be reasonably consistent with those achieved for 2016, leading to flat silver production. The 2017 forecast silver production is between 4.40 million and 4.50 million ounces, compared to the 4.43 million ounces produced in 2016. Anticipated enhanced zinc recoveries, combined with slightly increased throughput levels, should result in a 24% to 28% increase in zinc production. Copper and lead production is expected to remain relatively flat with 2016 levels.

Cash costs in 2017 are expected to decline by up to $1.05 per ounce to between $10.90 and $11.90 per ounce compared with 2016 due to larger by-product credits from higher base metal price assumptions and increased zinc production, offsetting operating cost increases. The escalating operating costs reflects the currency fixed at 6.91 Bolivian bolivianos ("BOB") per USD, coupled with an expected modest rate of inflation.

Planned sustaining capital is between $12.0 million and $13.0 million in 2017, which reflects an increase from the $5.0 million spent in 2016. Major components of 2017 sustaining capital spending include: $4.0 million for a tailings facility expansion; $2.6 million for near mine exploration; $1.5 million on mine equipment refurbishment and replacements; $1.7 million on a new ramp and substation development; and $0.5 million on environmental related expenditures including further upgrades to the water treatment plant.

AISCSOS for 2017 is expected to be between $13.80 and $14.80, comparable to the $14.30 reported in 2016. Higher than expected sustaining capital investments in 2017 are anticipated to be offset by higher by-product credits.

- ***Manantial Espejo mine***

Open-pit operations at Manantial Espejo are expected to conclude in the first half of 2017, which is expected to result in slightly higher throughput rates as the amount of harder open pit ore feed to the plant declines, and the processing of material from stockpiles grows. Thus, the 2017 processing plan includes approximately 50%, 30% and 20% of the ore feed coming from stockpiles, the open pit and underground sources, respectively. The combination is expected to lead to processing similar silver grades but lower gold grades, resulting in a modest increase in silver production to between 3.30 million and 3.40 million ounces compared to 3.14 million ounces produced in 2016, and a 39% to 44% decrease in gold production.

A sharp increase in cash costs is expected in 2017 from the $4.28 per ounce reported in 2016. Cash costs are expected to be between $15.35 to $16.25 per ounce in 2017, with the increase primarily attributable to the anticipated decrease in gold by-product credits from lower gold production and the cancellation of the Patagonia port credit in December 2016, which provided a credit of approximately $3.65 per ounce in 2016. These factors are expected to be partially offset by lower operating costs, royalties and higher silver payable production. Operating costs are expected to be lower than in 2016, driven primarily by the shutdown of open pit mining in 2017. Continued high inflation is expected to be largely offset by anticipated currency devaluation.

Sustaining capital expenditure in 2017 of between $3.5 million and $4.5 million are expected to be slightly higher than 2016 capital expenditures of $2.9 million. Approximately $2.5 million of the 2017 capital budget is for near mine exploration with an additional $1.0 million for underground mining equipment.

AISCSOS for 2017 is expected to be between $16.90 and $18.10, a significant increase from the negative $2.08 reported in 2016 (which included NRV inventory adjustments that reduced AISCSOS by $7.11 per ounce) due mainly to the lower by-product credits and higher sustaining capital.

MID-TERM OUTLOOK

The following table provides the Company's estimates for silver production, gold production, cash costs, sustaining capital expenditures, and AISCSOS for fiscal 2018 and 2019. The increase in production and decrease in mid-point cash costs and AISCSOS reflect the impact of the Company's mine expansion projects at La Colorada and Dolores.

These estimates are forward-looking statements and information that are subject to the cautionary note associated with forward-looking statements and information at the end of this MD&A.

	2018	2019
Silver production – million ounces	26.0 - 28.0	26.5 - 29.5
Gold production – thousand ounces	170.0 - 185.0	175.0 - 200.0
Cash costs – $/oz [1]	5.60 - 7.10	5.20 - 6.80
Sustaining capital – $ millions	75.0 - 85.0	75.0 - 90.0
AISCSOS – $/oz [1]	10.00 - 12.20	9.30 - 11.60

[1] 2018 and 2019 forecasted cash costs per silver ounce, net of by-product credits, and AISCSOS were calculated using the following by-product metal prices assumptions: Au $1,200/oz, Zn $2,500/tonne, Pb $2,100/tonne, Cu $5,400/tonne. Exchange rates used relative to US$: Mexican Peso 20:1, Peruvian Sol 3.3:1, Argentinean Peso 17:1, Bolivian Boliviano 7:1. Cash costs and AISCSOS are non-GAAP measures, please refer to the Alternative Performance (Non-GAAP) Measures section of the MD&A for detailed descriptions of how these measures are calculated.

2016 OPERATING PERFORMANCE

The following table provides silver production and cash costs, net of by-product credits, at each of Pan American's operations for the respective three and twelve month periods ended December 31, 2016 and 2015:

	Silver Production (ounces '000s)				Cash Costs[1] ($ per ounce)			
	Three months ended December 31,		Twelve months ended December 31,		Three months ended December 31,		Twelve months ended December 31,	
	2016	2015	**2016**	2015	**2016**	2015	**2016**	2015
La Colorada	**1,665**	1,423	**5,795**	5,327	**4.38**	7.28	**6.15**	7.41
Dolores	**897**	947	**3,838**	4,250	**(5.93)**	11.64	**(1.08)**	9.28
Alamo Dorado	**401**	818	**1,864**	2,970	**22.80**	5.49	**16.02**	11.41
Huaron	**935**	987	**3,812**	3,705	**4.54**	11.35	**5.79**	10.91
Morococha[2]	**578**	524	**2,541**	2,165	**5.52**	12.99	**4.21**	13.03
San Vicente[3]	**1,050**	1,081	**4,433**	4,118	**11.22**	11.12	**11.95**	11.57
Manantial Espejo	**779**	1,005	**3,136**	3,583	**14.61**	6.48	**4.28**	7.33
Consolidated Total [4]	**6,306**	6,785	**25,419**	26,119	**6.66**	9.09	**6.29**	9.70

[1] Cash costs is a non-GAAP measure. Please refer to the section "Alternative Performance (Non-GAAP) Measures" of this MD&A for a detailed description of the cash cost calculation, details of the Company's by-product credits and a reconciliation of this measure to the 2016 Financial Statements.

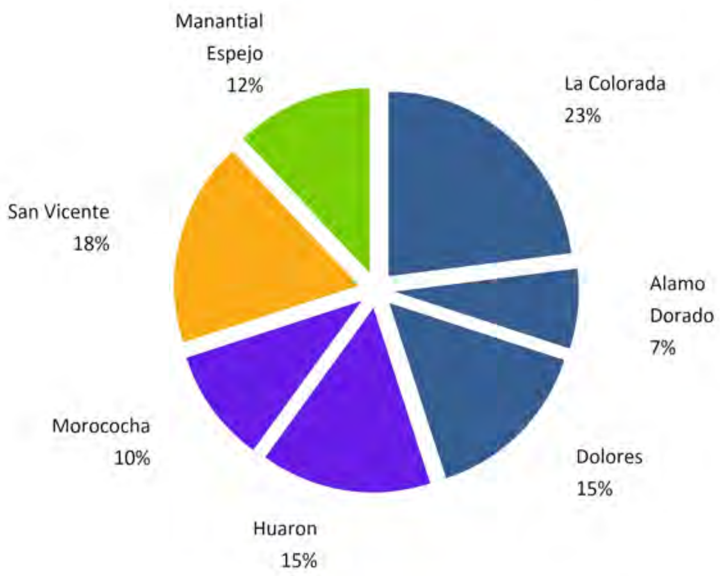
[2] Morococha data represents Pan American's 92.3% interest in the mine's production.

[3] San Vicente data represents Pan American's 95.0% interest in the mine's production.

[4] Totals may not add due to rounding.

- ***2016 Silver Production***

The chart below presents silver production by mine in 2016:



Consolidated silver production of 6.31 million ounces in Q4 2016 was 0.48 million ounces lower than that produced in the three months ended December 31, 2015 ("Q4 2015"). The decrease primarily reflected anticipated production declines at Alamo Dorado and Manantial Espejo, which were 0.42 million ounces and 0.23 million less than that produced in Q4 2015, respectively. These declines were partially offset from higher silver production at La Colorada, which produced 0.24 million ounces more than in Q4 2015.

For the twelve-month period, silver production totaled 25.42 million ounces in 2016, 0.70 million ounces lower than the 26.12 million ounces produced in 2015. The anticipated decrease in production reflected declining stockpile grades at Alamo Dorado, open-pit mining nearing completion at Manantial Espejo, and mine sequencing into lower silver grades ore at Dolores.

- ***2016 Cash Costs***

Consolidated cash costs per ounce of silver for the three and twelve months ended December 31, 2016, were $6.66 and $6.29, respectively, which compared to $9.09 and $9.70 for the three and twelve months ended December 31, 2015, representing reductions of 27% and 35%, respectively.

The quarter-over-quarter reduction in cash costs was the result of increased by-product credits, primarily from higher zinc and lead production and improved prices for all by-product metals, as well as the benefit of export incentives offered at Manantial Espejo.

The decline in annual cash costs was achieved through increased zinc and lead production and prices combined with higher gold prices, the benefit of export incentives at Manantial Espejo, and lower direct operating costs, most notably at Alamo Dorado, Dolores and Morococha.

Each operation's cash costs and period-over-period variances are separately discussed in the "Individual Mine Performance" section of this MD&A.

- ***2016 By-Product Production***

The following table provides the Company's by-product production for the three and twelve months ended December 31, 2016, and the comparable periods in 2015:

	By-Product Production			
	Three months ended December 31,		Twelve months ended December 31,	
	2016	2015	2016	2015
Gold – koz	**43.9**	48.2	**183.9**	183.7
Zinc – kt	**13.2**	11.5	**51.9**	40.6
Lead – kt	**5.5**	4.1	**20.2**	14.6
Copper – kt	**3.1**	4.0	**14.4**	15.0

Gold production during Q4 2016 was 9% lower than Q4 2015, as anticipated, with production decreases of 8.3 thousand ounces and 6.5 thousand ounces at Manantial Espejo and Alamo Dorado, respectively, more than offsetting the 10.6 thousand ounce increase at Dolores.

2016 annual gold production of 183.9 thousand ounces was comparable to the 183.7 thousand ounces produced in 2015. An increase of 23.6 thousand ounces at Dolores from improved gold grades offset declines of 12.0 thousand ounces and 10.4 thousand ounces at Alamo Dorado and Manantial Espejo, respectively.

During Q4 2016, Pan American produced 13.2 thousand tonnes of zinc and 5.5 thousand tonnes of lead, 15% and 34% more than in Q4 2015, respectively. Q4 2016 copper production of 3.1 thousand tonnes was 0.90 thousand tonnes less than in Q4 2015. Annual base metal production in 2016 of 51.9 thousand tonnes of zinc, 20.2 thousand tonnes of lead, and 14.4 thousand tonnes of copper were 28% higher, 39% higher, and 4% lower, respectively, compared with 2015 base metal production. Both the year-over-year and quarter-over-quarter variances in base metal production were driven mainly by higher zinc and lead grades at La Colorada and the Peruvian mines, as well as lower copper grades at the Peruvian mines.

• *2016 Average Market Metal Prices*

The following tables set out the average market price for each metal produced for the three and twelve months ended December 31, 2016, together with prices for the comparable periods in 2015:

	Average Market Metal Prices			
	Three months ended December 31,		Twelve months ended December 31,	
	2016	2015	**2016**	2015
Silver/ounce	**$ 17.19**	$ 14.77	**$ 17.14**	$ 15.68
Gold/ounce	**$ 1,222**	$ 1,106	**$ 1,251**	$ 1,160
Zinc/tonne	**$ 2,517**	$ 1,613	**$ 2,095**	$ 1,928
Lead/tonne	**$ 2,149**	$ 1,681	**$ 1,872**	$ 1,784
Copper/tonne	**$ 5,277**	$ 4,892	**$ 4,860**	$ 5,495

• *2016 AISCSOS*

The following table reflects the quantities of payable silver sold and AISCSOS at each of Pan American's operations for the three and twelve months ended December 31, 2016, as compared to the same periods in 2015:

	Payable Silver Sold (ounces '000s)				AISCSOS[1] ($ per ounce)			
	Three months ended December 31,		Twelve months ended December 31,		Three months ended December 31,		Twelve months ended December 31,	
	2016	2015	**2016**	2015	**2016**	2015	**2016**	2015
La Colorada	**1,561**	1,263	**5,486**	5,109	**5.52**	9.75	**7.49**	9.57
Dolores	**895**	1,048	**3,839**	4,448	**2.96**	21.55	**8.29**	12.67
Alamo Dorado	**286**	726	**1,967**	2,944	**28.44**	7.93	**14.85**	12.72
Huaron	**759**	774	**3,233**	3,009	**12.62**	18.74	**11.11**	16.89
Morococha	**526**	483	**2,377**	1,995	**15.02**	21.02	**9.32**	19.21
San Vicente	**1,332**	1,448	**4,264**	4,019	**12.43**	11.00	**14.30**	11.91
Manantial Espejo	**779**	978	**3,033**	3,655	**3.77**	10.96	**(2.08)**	18.81
Consolidated Total [2]	**6,138**	6,719	**24,200**	25,180	**10.38**	14.76	**10.17**	14.92

[1] AISCSOS is a non-GAAP measure. Please refer to the section "Alternative Performance (Non-GAAP) Measures" of this MD&A for a detailed description of the AISCSOS calculation and a reconciliation of this measure to the 2016 Financial Statements. G&A costs are included in the consolidated AISCSOS, but not allocated in calculating AISCSOS for each operation.

[2] Totals may not add due to rounding.

Consolidated AISCSOS for the three and twelve months ended December 31, 2016, were $10.38 and $10.17, respectively, which compared to $14.76 and $14.92 for the comparable periods of 2015, representing reductions of 30% and 32%, respectively.

The decrease in quarter-over-quarter AISCSOS mainly reflects: positive NRV inventory adjustments at Manantial Espejo and Dolores; increased by-product credits from stronger by-product metal prices and higher quantities of zinc and lead sold; lower production costs; and export incentives at Manantial Espejo. Partially offsetting these positive impacts were increased sustaining capital (largely at Dolores), and a decrease in the volume of silver sold. The decrease in annual AISCSOS was driven primarily by the same factors that were responsible for the reduction in quarter-over-quarter AISCSOS described above.

• *Individual Mine Performance*

The following tables summarize the 2016 metal production, cash costs and AISCSOS achieved for each individual operation compared to the amounts initially forecast in the annual MD&A for the fiscal year ended December 31, 2015. Reported metal figures included in tables in this section are volumes of metal produced.

For the purposes of these comparisons, the symbols have the following meanings:

✓✓	Actual results were better than 2016 initial annual guidance range
✓	Actual results met 2016 initial annual guidance range
✗	Actual results fell short of initial 2016 annual guidance range

	2016 Silver Production (million ounces)			2016 Cash Costs[1] ($ per ounce)			2016 AISCSOS[1] ($ per ounce)		
	Forecast [2]	Actual		Forecast [2]	Actual		Forecast [2]	Actual	
La Colorada	5.60 – 5.70	5.80	✓✓	$7.75 – $8.25	$6.15	✓✓	$9.25 – $10.30	$7.49	✓✓
Dolores	3.40 – 3.60	3.84	✓✓	$5.00 – $6.50	(1.08)	✓✓	$17.00 – $18.90	$8.29	✓✓
Alamo Dorado	1.00 – 1.20	1.86	✓✓	$13.50 – $14.50	16.02	✗	$13.80 – $15.30	$14.85	✓
Huaron	3.65 – 3.80	3.81	✓✓	$12.25 – $13.25	5.79	✓✓	$14.40 – $16.00	$11.11	✓✓
Morococha[3]	2.45 – 2.60	2.54	✓	$12.00 – $13.75	4.21	✓✓	$15.40 – $17.10	$9.32	✓✓
San Vicente[3]	4.30 – 4.35	4.43	✓✓	$11.25 – $11.75	11.95	✗	$12.00 – $13.30	$14.30	✗
Manantial Espejo	3.60 – 3.75	3.14	✗	$9.25 – $10.75	4.28	✓✓	$10.0 – $11.10	$(2.08)	✓✓
Consolidated Total[4]	24.00 – 25.00	25.42	✓✓	$9.45 – $10.45	$6.29	✓✓	$13.60 – $ 14.90	$10.17	✓✓

(1) Cash Costs and AISCSOS are non-GAAP measures. Please refer to the "Alternative Performance (non-GAAP) Measures" section of this MD&A for a detailed description of the AISCSOS calculation and a reconciliation of this measure to the 2016 Financial Statements.
(2) Forecast amount per guidance included in the annual MD&A for fiscal 2015 dated March 24, 2016.
(3) Production figures are only for Pan American's ownership share of Morococha (92.3%), and San Vicente (95.0%).
(4) Totals may not add due to rounding.

	2016 Gold Production (koz)			2016 Zinc Production (kt)		
	Forecast [1]	Actual		Forecast [1]	Actual	
La Colorada	2.7 – 2.9	2.9	✓	9.5 – 10.0	11.40	✓✓
Dolores	97.0 – 102.0	102.8	✓✓	—	—	—
Alamo Dorado	7.0 – 8.0	8.4	✓✓	—	—	—
Huaron	0.7 – 0.8	0.8	✓	13.0 – 13.5	19.94	✓✓
Morococha[2]	3.0 – 3.2	2.1	✗	16.10 – 17.0	15.46	✗
San Vicente[2]	—	—	—	7.4 – 7.5	5.08	✗
Manantial Espejo	64.6 – 68.1	66.9	✓	—	—	—
Consolidated Total[3]	175.0 – 185.0	183.9	✓	46.0 - 48.0	51.90	✓✓

(1) Forecast amount per guidance included in the annual MD&A for fiscal 2015 dated March 24, 2016.
(2) Production figures are only for Pan American's ownership share of Morococha (92.3%), and San Vicente (95.0%).
(3) Totals may not add due to rounding.

	2016 Lead Production (kt)			2016 Copper Production (kt)		
	Forecast [1]	Actual		Forecast [1]	Actual	
La Colorada	4.8 – 4.9	6.00	✓✓	—	—	—
Dolores	—	—	—	—	—	—
Alamo Dorado	—	—	—	0.0 – 0.01	0.03	✓✓
Huaron	6.7 – 6.9	10.72	✓✓	5.50 – 5.70	6.07	✓✓
Morococha[2]	2.7 – 2.8	2.94	✓✓	7.49 – 7.79	7.74	✓
San Vicente[2]	0.8 – 0.9	0.59	✗	—	0.55	✓✓
Manantial Espejo	—	—	—	—	—	—
Consolidated Total[3]	15.0 – 15.5	20.24	✓✓	13.0 – 13.5	14.40	✓✓

(1) Forecast amount per guidance included in the annual MD&A for fiscal 2015 dated March 24, 2016.
(2) Production figures are only for Pan American's ownership share of Morococha (92.3%), and San Vicente (95.0%).
(3) Totals may not add due to rounding.

	2016 Capital Investment ($ millions)	
	Forecast [1]	Actual [2]
La Colorada	$8.0 – $10.5	$ 9.9
Dolores	$39.0 – $42.0	$ 40.4
Huaron	$6.0 – $7.5	$ 11.1
Morococha	$7.0 – $8.5	$ 10.3
San Vicente	$3.0 – $4.0	$ 4.9
Manantial Espejo	$2.0 – $2.5	$ 2.9
Sustaining Capital Sub-total[2]	**$65.0 – $75.0**	**$ 79.5**
La Colorada Expansion Project	$64.0 – $66.5	$ 52.9
Dolores Expansion Project	$71.0 – $73.5	$ 66.1
Project Capital Sub-total[3]	**$135.0 – $140.0**	**$ 119.0**
2016 Total Capital[3]	**$200.0 – $215.0**	**$ 198.5**

(1) Forecast amount per guidance included in the annual MD&A for fiscal 2015 dated March 24, 2016.

(2) The sustaining capital amounts capitalized in 2016 were $9.9 million less than the $89.4 million of 2016 sustaining capital cash outflows, as shown in the tables included in the following individual mine discussions as well as in the 2016 AISCSOS calculation, shown in the "Alternative Performance (non-GAAP) Measures" section of this MD&A. The difference is due to the timing between the cash payment of capital investments compared to the period in which capital investments are made.

(3) Totals may not add due to rounding.

An analysis of each operation for the year ended December 31, 2016, as compared to the operating performance for the year ended December 31, 2015, as well as an analysis of the 2016 operating performance compared to management's initial 2016 forecast follows. The Project Capital amounts invested in 2016 are further discussed in the 2016 Project Development Update section of this MD&A.

La Colorada mine

	Twelve months ended December 31	
	2016	2015
Tonnes milled - kt	**528.8**	485.4
Average silver grade – grams per tonne	**377**	379
Average zinc grade - %	**2.63**	2.20
Average lead grade - %	**1.31**	1.01
Average silver recovery - %	**90.3**	90.1
Average zinc recovery - %	**82.2**	83.6
Average lead recovery - %	**86.5**	86.8
Production:		
Silver – koz	**5,795**	5,327
Gold – koz	**2.93**	2.63
Zinc – kt	**11.40**	8.91
Lead – kt	**6.00**	4.26
Cash cost per ounce net of by-products[1]	**$ 6.15**	$ 7.41
AISCSOS[2]	**$ 7.49**	$ 9.57
Payable silver sold - koz	**5,486**	5,109
Sustaining capital - ('000s)[3]	**$ 10,545**	$ 9,869

(1) Cash costs is a non-GAAP measure. Please refer to the "Alternative Performance (non-GAAP) Measures" section of this MD&A for a detailed reconciliation of this measure to our cost of sales.

(2) AISCSOS is a non-GAAP measure. Please refer to the "Alternative Performance (non-GAAP) Measures" section of this MD&A for a detailed description of the AISCSOS calculation and a reconciliation of this measure to the 2016 Financial Statements.

(3) Sustaining capital expenditures excludes $54.0 million of investing activity cash outflow for the year ended December 31, 2016 (2015: $48.2 million) related to investment capital incurred on the La Colorada expansion project as disclosed in the "2016 Project Development Update" section of this MD&A.

2016 versus 2015

The La Colorada mine produced 9% more silver in 2016 compared with 2015 due to a 9% increase in throughput rates and stable silver grades. The improved throughput was achieved as a result of the expansion project that was largely completed in Q4 2016. During 2016, the mine also increased the production of zinc and lead by 28% and 41%, respectively. The increase in base metals production was a function of a 9% higher throughput rate and improved zinc and lead grades of 20% and 30%, respectively, as the expansion project predominately increases sulphide ore production.

The 2016 cash costs of $6.15 per ounce of silver were $1.26 lower than the $7.41 per ounce cash costs in 2015. The 17% decrease reflects the combined effect of a 9% increase in payable silver ounces produced, and a 30% increase in by-product credits per ounce. The increased by-product credits were driven by higher lead and zinc production and prices.

2016 AISCSOS of $7.49 decreased 22% from $9.57 in 2015, due primarily to the increased by-product credits discussed and a 7% increase in the number of silver ounces sold, partially offset by higher TCRCs and increased sustaining capital.

Sustaining capital cash outflows at La Colorada during 2016 totaled $10.5 million, slightly more than the $9.9 million in 2015. Sustaining capital in 2016 related primarily to ventilation raise bores, equipment replacements and rehabilitations, exploration drilling, tailings facility expansion and access road works. Sustaining capital excludes $54.0 million spent on the La Colorada expansion project during the year (2015 - $48.2 million), which is further described in the 2016 Project Development Update section of this MD&A.

2016 versus Guidance

2016 silver production at La Colorada of 5.80 million ounces was 2% more than the high end of management's original forecast range of 5.60 million to 5.70 million ounces, primarily as a result of realizing higher than expected throughput rates. Similarly, base metal production benefited from better than expected grades as well as throughput rates, resulting in zinc and lead production exceeding the original guidance by 14% and 22%, respectively. The higher throughput also resulted in 2016 gold production being on the high end of the amount forecast for 2016.

Actual 2016 cash costs of $6.15 per ounce were lower than the low end of management's original forecast range of between $7.75 and $8.25 per ounce. Cash costs at La Colorada in 2016 were positively influenced by larger than expected by-product credits driven by higher zinc and lead prices and production, as well as greater payable silver production than originally expected.

2016 AISCSOS of $7.49 was lower than the low end of management's forecast range of between $9.25 and $10.30. The main drivers were higher than expected zinc and lead by-product credits and the greater quantities of silver sold, partially offset by higher than expected TCRCs.

Sustaining capital additions in 2016 totaled $9.9 million, which was consistent with the original forecast range of $8.00 to $10.50 million. Sustaining capital cash outflows in 2016 of $10.5 million were higher than additions due to the timing of cash payments for capital investments.

Dolores mine

	Twelve months ended December 31,	
	2016	2015
Tonnes placed - kt	**6,306.5**	6,108.9
Average silver grade – grams per tonne	**37**	44
Average gold grade – grams per tonne	**0.75**	0.57
Average silver produced to placed ratio - %	**50.8**	49.7
Average gold produced to placed ratio - %	**67.7**	70.9
Production:		
Silver – koz	**3,838**	4,250
Gold – koz	**102.76**	79.14
Cash cost per ounce net of by-products[1]	**$ (1.08)**	$ 9.28
AISCSOS[2]	**$ 8.29**	$ 12.67
Payable silver sold - koz	**3,839**	4,448
Sustaining capital - ('000s)[3]	**$ 48,079**	$ 25,162

(1) Cash costs is a non-GAAP measure. Please refer to the "Alternative Performance (non-GAAP) Measures" section of this MD&A for a detailed reconciliation of this measure to our cost of sales.

(2) AISCSOS is a non-GAAP measure. Please refer to the "Alternative Performance (non-GAAP) Measures" section of this MD&A for a detailed description of the AISCSOS calculation and a reconciliation of this measure to the 2016 Financial Statements.

(3) Sustaining capital expenditures exclude $65.1 million of investing activity cash outflow for the year ended December 31, 2016 (2015: $28.0 million) related to investment capital incurred on Dolores expansion projects, as disclosed in the "2016 Project Development Update" section of this MD&A.

2016 versus 2015

Dolores produced 3.84 million ounces of silver in 2016, which is 10% lower than the 4.25 million ounces produced in 2015. The decline is a result of expected lower silver grades partially offset by increased throughput. Gold production of 102.8 thousand ounces in 2016 was 30% higher than the 79.1 thousand ounces produced in 2015, and was primarily due to an expected 32% improvement to grades.

Negative cash costs of $1.08 per ounce of silver in 2016 were $10.36 per ounce lower than in 2015. The significant decrease in cash costs was mainly due to higher gold production and prices, and lower direct operating costs largely driven by favorable diesel fuel prices, partially offset by lower payable silver production.

2016 AISCSOS of $8.29 decreased $4.38 from $12.67 in 2015. The decrease was largely due to increased by-product credits from higher gold production and gold prices, decreased direct operating costs, and $11.0 million higher positive NRV inventory adjustments, partially offset by a $22.9 million increase in sustaining capital expenditures.

2016 sustaining capital expenditures at Dolores totaled $48.1 million, comprised primarily of open pit pre-stripping, leach pad expansion, and investments in mine equipment rehabilitations. The $22.9 million increase in sustaining capital in 2016 over 2015 was primarily due to the timing of 2015 capital payments, which carried over to 2016, as well as additional leach pad capital.

2016 versus Guidance

2016 silver production of 3.84 million ounces exceeded the top-end of management's original guidance range of 3.40 million to 3.60 million ounces, primarily because of better than anticipated stacking rates. Gold production of 102.8 thousand ounces was slightly ahead of the high end of management's guidance range of 97.0 thousand to 102.0 thousand ounces.

Negative cash costs of $1.08 per ounce of silver were significantly lower than the the low end of the original guidance range of $5.00 to $6.50 per ounce. The better than expected cash costs were mainly the result of better than forecast by-product credits from higher gold prices and lower than expected direct operating costs, largely driven by favorable diesel credit government incentives, lower international fuel prices and the devalued Mexican peso ("MXN").

2016 AISCSOS of $8.29 was lower than the low end of management's forecast range of between $17.00 and $18.90, primarily because of positive $22.4 million NRV adjustments in the year and the previously described higher than expected gold by-product credits, partially offset by lower than expected quantities of silver sold.

Sustaining capital additions in 2016 totaled $40.4 million, which was within the original forecast range of $39.0 million to $42.0 million. 2016 capital investments benefited from the devalued MXN. Sustaining capital cash outflows of $48.1 million were higher than additions due to the timing of cash payments for capital investments.

Alamo Dorado mine

	Twelve months ended December 31,	
	2016	2015
Tonnes milled - kt	**1,833.1**	1,798.6
Average silver grade – grams per tonne	**45**	62
Average gold grade – grams per tonne	**0.18**	0.39
Average silver recovery - %	**68.8**	82.9
Production:		
Silver – koz	**1,864**	2,970
Gold – koz	**8.38**	20.34
Copper – tonnes	**30**	100
Cash cost per ounce net of by-products[1]	**$ 16.02**	$ 11.41
AISCSOS[2]	**$ 14.85**	$ 12.72
Payable silver sold - koz	**1,967**	2,944
Sustaining capital - ('000s)	**$ —**	$ —

[1] Cash costs is a non-GAAP measure. Please refer to the "Alternative Performance (non-GAAP) Measures" section of this MD&A for a detailed reconciliation of this measure to our cost of sales.

[2] AISCSOS is a non-GAAP measure. Please refer to the "Alternative Performance (non-GAAP) Measures" section of this MD&A for a detailed description of the AISCSOS calculation and a reconciliation of this measure to the 2016 Financial Statements.

2016 versus 2015

Alamo Dorado silver production of 1.86 million ounces in 2016 was 37% lower than in 2015, primarily the result of lower silver grades from processing of only surface stockpiles. Similarly, gold production decreased by 59%, primarily due to lower grades contained in the processed surface stockpiles.

Cash costs for 2016 were $16.02 per ounce of silver, a $4.61 per ounce increase from $11.41 per ounce cash costs in 2015. The majority of the increase reflects a decline in payable silver and gold production due to reduced grades. Partially offsetting these increases to cash costs were decreases in direct operating costs attributable to the termination of open pit mining activities and favorable currency exchange rate movements.

2016 AISCSOS of $14.85 increased $2.13 from $12.72 in 2015. The increase was largely attributable to processing lower grade stockpiled material, which resulted in a 33% decrease in the volume of silver ounces sold, and lower by-product credits, driven by a 59% decrease in the quantity of gold sold, partially offset by higher gold prices.

No sustaining capital expenditures were incurred at Alamo Dorado during 2016 or 2015.

2016 versus Guidance

Alamo Dorado's silver production in 2016 of 1.86 million ounces was 55% more than the high end of management's original forecast range of 1.00 million to 1.20 million ounces. The better than forecast production was due to higher metal prices supporting continued processing of lower-grade surface stockpiles, whereas the mine was originally expected to stop producing in mid 2016.

Actual cash costs of $16.02 per ounce were higher than the high end of management's original forecast range of $13.50 to $14.50, due largely to the unexpected processing of lower margin, yet economic, stockpiles throughout 2016.

2016 AISCSOS of $14.85 was within management's original forecast range of $13.80 to $15.30 per ounce, benefiting from higher quantities of payable silver sold than produced.

As forecasted, there were no sustaining capital expenditures at Alamo Dorado during 2016.

Huaron mine

	Twelve months ended December 31,	
	2016	2015
Tonnes milled - kt	**904.4**	894.5
Average silver grade – grams per tonne	**157**	157
Average zinc grade - %	**3.01**	2.41
Average lead grade - %	**1.51**	1.08
Average copper grade - %	**0.90**	0.97
Average silver recovery - %	**84.1**	83.2
Average zinc recovery - %	**74.3**	63.8
Average lead recovery - %	**79.4**	73.1
Average copper recovery - %	**75.5**	78.5
Production:		
Silver – koz	**3,812**	3,705
Gold – koz	**0.81**	1.05
Zinc – kt	**19.94**	13.55
Lead – kt	**10.72**	6.92
Copper – kt	**6.07**	6.70
Cash cost per ounce net of by-products[1]	**$ 5.79**	$ 10.91
AISCSOS[2]	**$ 11.11**	$ 16.89
Payable silver sold – koz	**3,233**	3,009
Sustaining capital - ('000s)	**$ 11,994**	$ 13,610

[1] Cash costs is a non-GAAP measure. Please refer to the "Alternative Performance (non-GAAP) Measures" section of this MD&A for a detailed reconciliation of this measure to our cost of sales.

[2] AISCSOS is a non-GAAP measure. Please refer to the "Alternative Performance (non-GAAP) Measures" section of this MD&A for a detailed description of the AISCSOS calculation and a reconciliation of this measure to the 2016 Financial Statements.

2016 versus 2015

Slightly higher year-over-year throughput rates and recoveries resulted in 3% higher silver production in 2016 compared with 2015. During 2016, Huaron produced 19.9 thousand tonnes of zinc and 10.7 thousand tonnes of lead, which were 47% and 55% more than in 2015, respectively, while copper production of 6.1 thousand tonnes was 9% less than 2015. The year-over-year differences in base metal production were a function of variations in grades and recoveries due to mine sequencing.

Huaron cash costs of $5.79 per ounce declined 47% because of significantly higher by-product zinc and lead production and prices, which more than offset lower copper production and prices.

2016 AISCSOS of $11.11 was 34% lower than the $16.89 in the previous year. The decrease was attributable to the significantly higher by-product credits, which more than offset the higher TCRCs and higher direct operating costs due to increased throughput and increases in certain consumables.

Sustaining capital expenditures at the Huaron mine during 2016 totaled $12.0 million compared to $13.6 million in 2015. Capital investments in 2016 related primarily to equipment replacements, exploration drilling, and a tailings storage facility expansion.

2016 versus Guidance

2016 throughput rates and silver grades were consistent with expectations, while recoveries were slightly better than expected, which resulted in production of 3.81 million ounces being slightly higher than the high end of management's original 2016 guidance of 3.65 million ounces to 3.80 million ounces.

Zinc, lead, and copper production were 48%, 55%, and 6% higher than the high end of management's forecast ranges of between 13.00 and 13.50 thousand tonnes, 6.70 and 6.90 thousand tonnes, and 5.50 and 5.70 thousand tonnes, respectively. By-product metal production exceeded management's forecast amounts due to better than expected grades and recoveries for all metals, except for copper where recoveries were lower than expected.

Actual 2016 cash costs of $5.79 per ounce were 53% lower than the low end of management's original forecast range of $12.25 to $13.25 per ounce, primarily because of higher than anticipated by-product credits due to both price and quantity.

2016 AISCSOS of $11.11 was 23% lower than the low end of management's original forecast range of $14.40 to $16.00, as a result of higher than anticipated by-product credits described above.

Sustaining capital additions in 2016 totaled $11.1 million, which was higher than the high end of management's original forecast range of $6.0 million to $7.5 million due to capturing opportunities to secure additional narrow-vein underground mining equipment and more significant exploration activities. Sustaining capital payments of $12.0 million were higher than additions due to the timing of payments versus accruals.

Morococha mine[1]

	Twelve months ended December 31,	
	2016	2015
Tonnes milled – kt	**672.8**	637.2
Average silver grade – grams per tonne	**135**	124
Average zinc grade - %	**3.15**	2.83
Average lead grade - %	**0.75**	0.71
Average copper grade - %	**1.44**	1.52
Average silver recovery - %	**88.4**	85.2
Average zinc recovery - %	**73.2**	64.1
Average lead recovery - %	**60.0**	59.0
Average copper recovery - %	**82.6**	85.8
Production:		
Silver – koz	**2,541**	2,165
Gold – koz	**2.14**	3.22
Zinc – kt	**15.46**	11.37
Lead – kt	**2.94**	2.56
Copper – kt	**7.74**	8.16
Cash cost per ounce net of by-products [2]	**$ 4.21**	$ 13.03
AISCSOS[3]	**$ 9.32**	$ 19.21
Payable silver sold (100%) - koz	**2,377**	1,995
Sustaining capital (100%) - ('000s)	**$ 10,945**	$ 7,713

[1] Production figures are for Pan American's 92.3% share only, unless otherwise noted.

[2] Cash costs is a non-GAAP measure. Please refer to the "Alternative Performance (non-GAAP) Measures" section of this MD&A for a detailed reconciliation of this measure to our cost of sales.

[3] AISCSOS is a non-GAAP measure. Please refer to the "Alternative Performance (non-GAAP) Measures" section of this MD&A for a detailed description of the AISCSOS calculation and a reconciliation of this measure to the 2016 Financial Statements.

2016 versus 2015

In 2016, higher silver grades, throughput, and recoveries led to a silver production increase of 17% as compared to 2015, a result of higher production rates from silver-rich ore bodies.

During 2016, Morococha produced 15.5 thousand tonnes of zinc and 2.9 thousand tonnes of lead, which were 36% and 15% more than in 2015, respectively, while copper production of 7.7 thousand tonnes was 5% less than 2015. The year-over-year difference in base metal production was a function of grades and recoveries on account of mine sequencing.

Cash costs of $4.21 per ounce in 2016 declined 68% over 2015 because of substantially lower unit operating costs per tonne, driven by benefits from mechanization of mining in larger ore bodies, a 15% increase in payable silver production, and increased by-product credits per ounce from zinc and lead production and prices.

2016 AISCSOS of $9.32 was 51% lower than $19.21 in 2015. The year-over-year reduction was attributable to an 11% reduction in production costs due to mechanization efforts in the larger ore bodies, a 9% increase in by-product credits due to increased quantities and prices of both zinc and lead, and an 18% reduction in TCRCs on concentrate, all of which more than offset a 42% increase in sustaining capital.

Sustaining capital expenditures during 2016 totaled $10.9 million, up $3.2 million from 2015. The increase is primarily related to the Manuelita mine area deepening activities, additional mine equipment purchases and expanded exploration drilling.

2016 versus Guidance

2016 silver production was in the mid-point of management’s guidance range of 2.45 million to 2.60 million ounces as a result of better than expected recoveries being offset by lower realized silver grades.

Results for by-product metal production were mixed relative to guidance, all associated with mine sequencing decisions. Gold and zinc underperformed guidance of 3.0 to 3.2 thousand ounces and 16.1 to 17.0 thousand tonnes by 29% and 4%, respectively. Copper production was in the mid-point of management’s guidance range of 7.5 to 7.8 thousand tonnes, while lead production exceeded the higher end of management’s guidance of 2.7 to 2.8 thousand tonnes, by 5%.

Actual 2016 cash costs of $4.21 per ounce were 65% below the low end of our forecast range of $12.00 to $13.75 per ounce. This was attributable to the lower than expected operating costs realized from efficiency gains related to mechanized mining of the larger ore bodies, and lower than expected concentrate TCRC rates.

2016 AISCSOS of $9.32 was 39% lower than the lower end of management’s guidance range of $15.40 to $17.10. This was a result of lower than anticipated production costs and TCRCs, partially offset by higher than expected sustaining capital.

Sustaining capital additions in 2016 totaled $10.3 million, which were higher than the high end of management's original forecast range of $7.0 to $8.5 million due to increased near mine exploration development, additional mine equipment acquisitions, and better than expected advancements in the Manuelita mine deepening. Sustaining capital cash payments of $10.9 million in 2016 exceeded additions due to the timing of payments versus accruals.

San Vicente mine [(1)]

	Twelve months ended December 31,	
	2016	2015
Tonnes milled – kt	**338.9**	330.8
Average silver grade – grams per tonne	**443**	422
Average zinc grade - %	**2.05**	2.65
Average lead grade - %	**0.32**	0.32
Average silver recovery - %	**93.2**	92.6
Average zinc recovery - %	**73.0**	77.6
Average lead recovery - %	**84.2**	80.4
Production:		
Silver – koz	**4,433**	4,118
Zinc – kt	**5.08**	6.82
Lead – kt	**0.59**	0.84
Copper – kt	**0.55**	—
Cash cost per ounce net of by-products [(2)]	**$ 11.95**	$ 11.57
AISCSOS[(3)]	**$ 14.30**	$ 11.91
Payable silver sold (100%) - koz	**4,264**	4,019
Sustaining capital (100%) - ('000s)	**$ 4,963**	$ 3,286

[(1)] Production figures are for Pan American's 95.0% share only, unless otherwise noted.

[(2)] Cash costs is a non-GAAP measure. Please refer to the "Alternative Performance (non-GAAP) Measures" section of this MD&A for a detailed reconciliation of this measure to our cost of sales.

[(3)] AISCSOS is a non-GAAP measure. Please refer to the "Alternative Performance (non-GAAP) Measures" section of this MD&A for a detailed description of the AISCSOS calculation and a reconciliation of this measure to the 2016 Financial Statements.

2016 versus 2015

San Vicente achieved record silver production in 2016, which rose 8% over 2015, primarily due to higher grades and throughput. Production of lead declined 30% in 2016, due to marketing some of the concentrates as higher value copper-silver concentrate as opposed to lead-silver concentrate. As a result, copper production of 0.6 thousand tonnes was commercialized in 2016, more than offsetting the foregone revenue from the lower lead production. Zinc production was 26% lower than in 2015 because of lower zinc grades.

2016 cash costs of $11.95 per ounce increased 3% due to higher royalties resulting from increased metal prices, partially offset by higher silver payable production, and higher by-product credits. By-product credits in 2016 reflect higher zinc and lead prices and the addition of copper production, offset by lower payable zinc and lead production.

2016 AISCSOS increased by 20% to $14.30 from $11.91 in 2015, primarily due to the higher royalty costs from higher metal prices, and higher TCRCs, partially offset by 6% higher silver sales.

Sustaining capital expenditures during 2016 and 2015 totaled $5.0 million and $3.3 million, respectively, and were comprised mainly of mine infrastructure, and equipment rebuilds and replacements.

2016 versus Guidance

Attributable silver production in 2016 of 4.43 million ounces was 2% above the high end of management's forecast range of 4.30 million to 4.35 million ounces, primarily because of higher than expected silver grades. Base metal production of zinc and lead were 31% and 26% below the low end of management's forecast ranges of between 7.4 to 7.5 thousand tonnes and 0.8 to 0.9 thousand tonnes, respectively. Zinc grades were lower than expected, and production shifted from lead to copper to take advantage of commercial opportunities, resulting in unanticipated copper production of 0.6 thousand tonnes.

Actual cash costs of $11.95 per ounce of silver were 2% above the high end of management's forecasted range of $11.25 to $11.75 per ounce, primarily as a result of higher royalty costs.

Similarly, 2016 AISCSOS of $14.30 was 7% above the high end of management's forecast range of between $12.00 and $13.30, mainly due to higher than expected royalties and TCRCs.

Sustaining capital additions in 2016 totaled $4.9 million, higher than the high end of management's original forecast range of $3.0 to $4.0 million due primarily to increased near mine exploration activities. Sustaining capital cash payments of $5.0 million exceeded additions due to timing of payments versus accruals.

Manantial Espejo mine

	Twelve months ended December 31,			
		2016		2015
Tonnes milled - kt		**753.6**		774.9
Average silver grade – grams per tonne		**143**		158
Average gold grade – grams per tonne		**2.94**		3.28
Average silver recovery - %		**90.2**		91.6
Average gold recovery - %		**93.8**		95.1
Production:				
Silver – koz		**3,136**		3,583
Gold – koz		**66.89**		77.32
Cash cost per ounce net of by-products [1]	**$**	**4.28**	$	7.33
AISCSOS[2]	**$**	**(2.08)**	$	18.81
Payable silver sold - koz		**3,033**		3,655
Sustaining capital - ('000s)	**$**	**2,868**	$	14,061

[1] Cash costs is a non-GAAP measure. Please refer to the "Alternative Performance (non-GAAP) Measures" section of this MD&A for a detailed reconciliation of this measure to our cost of sales.

[2] AISCSOS is a non-GAAP measure. Please refer to the "Alternative Performance (non-GAAP) Measures" section of this MD&A for a detailed description of the AISCSOS calculation and a reconciliation of this measure to the 2016 Financial Statements.

2016 versus 2015

2016 silver production at Manantial Espejo was 12% lower than in 2015 mainly due to a 9% decrease in silver grades and a 3% decrease in throughput that resulted primarily from harder ores encountered at the Concepcion pit, as well as a two-week labour related work stoppage in the second quarter. 2016 gold production of 66.89 thousand ounces was 13% less than 2015 as a result of lower grades due to mine sequencing and decreased throughput.

2016 cash costs of $4.28 per silver ounce were $3.05 per ounce lower than the $7.33 per ounce in 2015. The main factors driving the significant decline were: the devaluation of the local currency; lower diesel prices; reduced direct selling costs from the elimination of the export tariff and a new export incentive credit; and higher by-product credits from improved gold prices offset by lower gold production. These factors were partially offset by a decline in payable silver ounces produced.

AISCSOS in 2016 decreased $20.89 from 2015 to negative $2.08. The majority of this decrease was attributable to the year-over-year variance in NRV inventory adjustments, where 2016 positive NRV inventory adjustments decreased AISCSOS by $7.11 per ounce compared to negative NRV adjustments that increased 2015 AISCSOS by $6.24 per ounce. The remainder of the decrease was due to lower direct operating costs, lower direct selling costs, and lower sustaining capital. These factors were partially offset by the decrease in number of silver ounces sold.

Sustaining capital expenditures in 2016 totaled $2.9 million, an $11.2 million decrease from $14.1 million in 2015. The significant decrease reflects the cessation of pre-stripping activities in the open-pit mine, which occurred in 2015. The 2016 sustaining capital consisted primarily of exploration drilling and equipment refurbishments.

2016 versus Guidance

2016 silver production was 13% lower than the bottom end of management's original forecast range of 3.60 million to 3.75 million ounces due to harder ores encountered at the Concepcion pit hampering throughput, and an unanticipated two-week labour related work stoppage in the second quarter. Gold production of 66.89 thousand ounces in 2016 was within Management's original forecast of 64.60 thousand to 68.10 thousand ounces, as a result of higher than anticipated gold grades.

2016 cash costs of $4.28 per silver ounce were significantly lower than the low end of the forecast range of $9.25 to $10.75 per ounce. The main drivers for the lower than expected cash costs were higher than expected by-product credits from higher gold prices, lower than expected direct operating and selling costs from improved productivity, the elimination of the export tariff and the addition of an export incentive credit.

2016 AISCSOS of negative $2.08 was significantly lower than the low end of management's original forecast range of between $10.00 and $11.10; this was mainly due to the unanticipated $21.5 million in positive NRV adjustments that reduced 2016 AISCSOS by $7.11 per ounce. In addition, 2016 AISCSOS reflects higher than expected by-product credits and lower than expected direct selling costs, partially offset by lower than expected silver sales.

Sustaining capital additions in 2016 totaled $2.9 million and were relatively consistent with management's original forecast range of $2.0 to $2.5 million.

2016 PROJECT DEVELOPMENT UPDATE

The following table reflects the amounts spent at each of Pan American's major projects in 2016 as compared to 2015.

Project Development Investment (thousands of USD)	**2016**	**2015**
La Colorada Expansion [(1)]	**$ 52,854**	$ 48,601
Dolores Projects [(2)]	**$ 66,116**	$ 25,093
Total	**$ 118,970**	$ 73,694

(1) Amounts capitalized for the projects during the year were $1.1 million less than the project cash outflows as a result of changes in accounts payable balances (2015: $0.4 million more)

(2) Amounts capitalized for the project during the year were $1.0 million more than the project cash outflows as a result of changes in accounts payable balances (2015: $2.9 million less)

• *La Colorada Expansion Project*

During 2016, the Company invested $52.9 million in the La Colorada expansion project and achieved the following milestones:

- Commissioning the new 618-metre deep mine shaft in fully automatic mode took place in early September, ahead of schedule. The shaft was constructed with a safety performance of zero lost-time accidents experienced, and operated as expected throughout Q4 2016.

- Commissioned the new sulphide ore processing plant in early August 2016. The design production throughput of 1,600 tonnes of ore per day was routinely achieved throughout Q3-2016 and Q4-2016.

- Advanced the underground mine development. Ore production is expected to ramp up through 2017 to reach the designed 1,800 tpd by the end of the year, which will provide sufficient ore to enable the new sulphide ore plant and mine shaft to operate at full rates.

- Advanced the construction of the new 115kV power line, including the receipt of environmental approvals and construction permits. One additional permit is required to complete the installation of the first section of the power line. Energization of the new line is expected in Q2 2017.

The $52.9 million invested in 2016 was less than the low end of management's original forecast range of $64.0 million to $66.5 million due largely to project management efficiencies, along with favorable foreign exchange rates and supplier terms resulting in the project advancing on schedule and under budget. The work remaining includes completing and energizing the new power line, and the project related underground development in the Estrella vein. The project is expected to be completed approximately 5% under budget.

• *Dolores Projects*

During 2016, the Company invested $66.1 million in the Dolores expansion projects, with efforts directed at:

- Advancing construction of the new pulp agglomeration plant, which involved: obtaining the necessary construction permits; the completion of civil earthworks; the completion of all detailed engineering; the receipt of all major equipment; the installation of two of three pressure filters, setting the rod mill and the secondary crusher; and progressing the installation of structural steel, piping and electrical systems for the plant.

- Advancing the underground mine development, including: completing the main ramp decline; advancing a total of 2,800 metres of underground drift development; completing the first of two raise bore holes to surface to allow for mine ventilation; and diamond drilling of the mineral zone from the new underground openings.

- Completed and energized the new 98 kilometre, 115 kV power line in early September on budget. The new power line connects the mine to the national power grid and is expected to result in annual savings of approximately $9.0 million.

The 2016 investment of $66.1 million was slightly lower than the low end of the $71.0 million to $73.5 million range originally forecast due to activities being behind the schedule originally anticipated. Overall, the Dolores expansion project is on schedule for an anticipated commissioning of the pulp agglomeration plant by mid-2017 and underground operations entering production by the end of 2017. The Dolores pulp agglomeration plant and underground expansion project has an estimated capital investment of approximately $112.4 million. By the end of 2017, this project is expected to increase silver and gold production through a combination of greater throughput and higher recoveries, with associated operational efficiencies helping to reduce cash costs.

OVERVIEW OF 2016 FINANCIAL RESULTS

• *Selected Annual and Quarterly Information*

The following tables set out selected quarterly results for the past twelve quarters as well as selected annual results for the past three years, which are stated in thousands of USD, except for the per share amounts. The dominant factors affecting results in the quarters and years presented below are volatility of metal prices realized, industry wide cost pressures, and the timing of the sales of production which varies with the timing of shipments. The fourth quarter of 2015 included impairment charges to Morococha, Dolores, and Alamo Dorado, while the third quarter of 2015 included impairment charges to Manantial Espejo. The fourth quarter of 2014 included impairment charges related to Dolores, Manantial Espejo, Alamo Dorado and certain exploration and development properties, including Navidad.

2016	**Quarter Ended**				**Year Ended**
(In thousands of USD, other than per share amounts)	**March 31**	**June 30**	**Sept 30**	**Dec 31**	**Dec 31**
Revenue	$ 158,275	$ 192,258	$ 233,646	$ 190,596	$ 774,775
Mine operating earnings	$ 16,698	$ 44,730	$ 88,495	$ 48,956	$ 198,879
Attributable earnings for the period	$ 1,738	$ 33,804	$ 42,766	$ 21,777	$ 100,085
Basic earnings per share	$ 0.01	$ 0.22	$ 0.28	$ 0.14	$ 0.66
Diluted earnings per share	$ 0.01	$ 0.22	$ 0.28	$ 0.14	$ 0.66
Cash flow from operating activities	$ 771	$ 66,019	$ 102,346	$ 45,668	$ 214,804
Cash dividends paid per share	$ 0.0125	$ 0.0125	$ 0.0125	$ 0.0125	$ 0.0500
Other financial information					
Total assets					$ 1,898,141
Total long-term financial liabilities[1]					$ 118,594
Total attributable shareholders' equity					$ 1,396,298

[1] Total long-term financial liabilities are comprised of non-current liabilities excluding deferred tax liabilities, deferred revenue, and share purchase warrant liabilities. .

2015	Quarter Ended				Year Ended
(In thousands of USD, other than per share amounts)	March 31	June 30	Sept 30	Dec 31	Dec 31
Revenue	$ 178,125	$ 174,189	$ 159,414	$ 162,960	$ 674,688
Mine operating earnings (loss)	$ 2,630	$ (952)	$ (25,996)	$ (7,771)	$ (32,089)
Attributable loss for the period	$ (19,371)	$ (7,322)	$ (67,048)	$ (132,909)	$ (226,650)
Basic loss per share	$ (0.13)	$ (0.05)	$ (0.44)	$ (0.88)	$ (1.49)
Diluted loss per share	$ (0.13)	$ (0.05)	$ (0.44)	$ (0.88)	$ (1.49)
Cash flow from operating activities [(1)]	$ 11,848	$ 20,577	$ 32,866	$ 23,401	$ 88,692
Cash dividends paid per share	$ 0.125	$ 0.05	$ 0.05	$ 0.05	$ 0.275
Other financial information					
Total assets					$ 1,715,037
Total long-term financial liabilities					$ 114,354
Total attributable shareholders’ equity					$ 1,297,222

2014	Quarter Ended				Year Ended
(In thousands of USD, other than per share amounts)	March 31	June 30	Sept 30	Dec 31	Dec 31
Revenue	$ 209,734	$ 200,847	$ 178,265	$ 163,096	$ 751,942
Mine operating earnings (loss)	$ 31,576	$ 10,245	$ (12,378)	$ (21,369)	$ 8,073
Attributable earnings (loss) for the period	$ 6,844	$ (5,472)	$ (20,254)	$ (526,706)	$ (545,588)
Basic earnings (loss) per share	$ 0.05	$ (0.04)	$ (0.13)	$ (3.48)	$ (3.60)
Diluted earnings (loss) per share	$ 0.05	$ (0.04)	$ (0.15)	$ (3.48)	$ (3.60)
Cash flow from operating activities	$ 36,125	$ 48,895	$ 38,345	$ 823	$ 124,188
Cash dividends paid per share	$ 0.125	$ 0.125	$ 0.125	$ 0.125	$ 0.50
Other financial information					
Total assets					$ 2,017,873
Total long-term financial liabilities					$ 79,823
Total attributable shareholders’ equity					$ 1,563,092

- ***Income Statement, 2016 vs. 2015 :***

Net earnings of $101.8 million was recorded in 2016 compared to a net loss of $231.6 million in 2015, which corresponds to a basic earnings and loss per share of $0.66 and ($1.49), respectively.

The following table highlights the key items that resulted in the net earnings for the year ended December 31, 2016, versus the net loss for the year ended December 31, 2015:

Net loss, year ended December 31, 2015 (in thousands of USD)			**$**	**(231,556)**
Increased revenue:				
Higher realized metal prices	$	67,292		
Higher quantities of metal sold		7,102		
Beneficial settlement adjustments		15,154		
Decreased direct selling costs		10,539		
Total increase in revenue			**$**	**100,087**
Decreased cost of sales:				
Lower production costs net of increased royalty charges	$	95,991		
Lower depreciation and amortization		34,890		
Total decrease in cost of sales			**$**	**130,881**
Decreased impairment charges				150,268
Increased net gain on asset sales, commodity contracts, and derivatives				19,830
Increased dilution gain, net of share of loss from associate				7,946
Increased investment income and other expense, net				5,193
Decreased foreign exchange loss				3,950
Decreased exploration and project development expense				606
Increased income tax expense				(78,645)
Increased general and administrative expense				(5,636)
Increased interest and finance expense				(1,099)
Net earnings, year ended December 31, 2016			**$**	**101,825**

The $333.4 million year-over-year increase to net earnings was primarily attributable to the $150.3 million decrease in pre-tax impairment charges, the $130.9 million decrease in cost of sales expense, the $100.1 million increase in revenue, and a $24.7 million increased gain on sale of mineral properties, plant and equipment, partially offset by the $78.6 million increase in income tax expense. The following describes these factors in more detail.

Revenue for the year ended December 31, 2016 was $774.8 million, a 15% increase from the $674.7 million of revenue in 2015. The major factors behind the revenue increase were: a $67.3 million price variance from higher metal prices realized for all metals, except copper; a $15.2 million increase from positive settlement adjustments in 2016 compared to negative adjustments in 2015; a $10.5 million decrease in direct selling costs, primarily relating to the 2016 benefit of Argentine export incentives; and a positive $7.1 million variance from higher quantities of base metals sold, net of lower quantities of silver and gold sold.

The following table reflects the metal prices that the Company realized, and the quantities of metal sold during each year. The Company's 2016 average realized prices increased for all metals sold except copper. Year-over-year realized silver and gold prices increased by 12% and 8%, respectively. For base metals, the average realized prices for zinc and lead increased by 13% and 8%, respectively, while realized copper prices declined 9% from 2015. During 2016, the Company sold 4% less silver and 5% less gold than in 2015, resulting from the timing of sales and lower silver production. Base metals sales volumes increased 32%, 39%, and 6% from 2015 for zinc, lead and copper, respectively. Zinc and lead sales volume increases were largely attributable to increased production, while the increase in copper sales volumes was driven by the timing of sales.

	Realized Metal Prices		Quantities of Metal Sold	
	Year ended December 31,		Year ended December 31,	
	2016	2015	2016	2015
Silver[1] – koz	**$ 17.35**	$ 15.53	**24,200**	25,180
Gold[1] – koz	**$ 1,251**	$ 1,162	**180.0**	190.2
Zinc[1] – kt	**$ 2,133**	$ 1,889	**45.8**	34.7
Lead[1] – kt	**$ 1,892**	$ 1,745	**18.8**	13.5
Copper[1] – kt	**$ 4,816**	$ 5,314	**13.5**	12.8

[1] Metal price stated as dollars per ounce for silver and gold, and dollars per tonne for zinc, lead and copper.

Mine operating earnings for the year ended December 31, 2016 were $198.9 million, a $231.0 million increase from mine operating losses of $32.1 million recorded in the year ended December 31, 2015. The year-over-year increase was the result of the previously discussed $100.1 million revenue increase combined with a net $130.9 million decrease in cost of sales. The year-over-year costs of sales decrease was the result of decreased production costs and depreciation and amortization expense, partially offset by increased royalty costs.

2016 production costs of $428.3 million were $103.7 million, 19% lower than in 2015. The decline was largely attributable to a cost reducing variance in NRV inventory adjustments, along with lower direct operating costs. There were positive, production cost reducing inventory NRV adjustments of $42.8 million in 2016, compared to negative, production cost increasing, inventory NRV adjustments of $10.9 million in 2015. The positive year-over-year variance was primarily driven by metal price increases, and related to Manantial Espejo and Dolores, where positive adjustments of $21.5 million and $22.4 million were recognized in 2016, respectively. Lower direct operating costs were primarily from Alamo Dorado, Manantial Espejo, Dolores and Morococha mines. Production costs generally continue to benefit from productivity gains and lower consumable costs, aided by favorable exchange rate changes. Decreased mining activities at Alamo Dorado, and to a lesser degree Manantial Espejo, also contributed to the cost reduction.

Depreciation and amortization expense of $116.0 million in 2016 was $34.9 million lower than in 2015. The reduction was attributable to the decrease in depreciable assets, resulting largely from asset impairment charges taken in 2015, partially offset by the increase in certain depreciable assets, mainly at the Dolores mine. The decline in depreciation and amortization was most significant at the Manantial Espejo and Alamo Dorado mines, partially offset by a depreciation and amortization increase at Dolores.

Royalty costs in 2016 were $31.6 million, $7.7 million higher than those in 2015, because of the year-over-year increases in metal prices discussed above.

G&A expenses for the years ended December 31, 2016 and 2015 were $23.7 million and $18.0 million, respectively. The increase in G&A from 2015 was driven by severance costs and increased accruals for certain annual bonuses recorded in 2016 compared with 2015. Share-based compensation expense for 2016 and 2015 was $3.8 million and $2.6 million, respectively.

Exploration and project development expenses for the year ended December 31, 2016 were $11.3 million, comparable to the $11.9 million expense in 2015. Both 2016 and 2015 exploration and project development expenditures were primarily related to activities near the Company's existing mines, at select greenfield projects, and on the holding and maintenance costs associated with the Navidad project, where approximately $3.4 million was spent in 2016 compared to approximately $6.8 million in 2015.

Foreign exchange ("FX") losses for the year ended December 31, 2016 were $9.1 million compared with $13.0 million of losses incurred in 2015. The losses in 2016 are largely on MXN denominated treasury balances, and MXN and Argentinian peso ("ARS") denominated Value Added Tax ("VAT") receivables. Losses in 2015 resulted largely from MXN and CAD denominated treasury balances, and MXN and ARS denominated VAT receivables. The MXN devalued approximately 17% during 2016 compared to approximately 14% during 2015. The ARS devalued approximately 18% in 2016 compared to approximately 35% in 2015. The CAD appreciated 3% during 2016 compared to the approximate 16% devaluation in 2015.

Impairments of mineral properties, plant and equipment assets of $150.3 million pre-tax ($106.0 million net of tax) were recorded in 2015, with no impairment charges recorded in 2016. The total 2015 pre-tax impairment of $150.3 million was comprised of total impairments of: $90.4 million to depletable mineral properties; $14.6 million to non-depletable mineral properties; and $45.3 million to plant and equipment assets.

When events or changes in circumstances indicate that the carrying value of mineral properties plant and equipment assets may not be recoverable, or previous impairments on assets are recoverable, the Company assesses impairment, or if previous impairment charges should be reversed. This assessment is done at the cash-generating unit ("CGU") level, which is considered to be individual mine sites or development properties. The discount rates used to present value the Company's life of mine cash flows are derived from the Company's weighted average cost of capital, which was calculated as 6.4% for 2016 (2015 – 6.4%), with rates applied to the various mines and projects ranging from 5% to 9% depending on the Company's assessment of country risk, project risk, and other potential risks specific to each CGU.

The key assumptions in determining the recoverable value of the Company's mineral properties are metal prices, operating and capital costs, foreign exchange rates and discount rates. The Company's key assumptions for each impairment and impairment reversal test included the most current operating and capital costs information and risk-adjusted project specific discount rates.

The Company used an average of analysts' consensus pricing for the first four years of its economic modeling for the purposes of the impairment and impairment reversal analysis ("Consensus prices"), and the Company's reserve prices for the long-term price assumptions for the remainder of each asset's life. The net increase in metal prices over 2016 led to the Company increasing the price assumptions used to estimate mineral reserves at year-end. The prices used can be found in the key assumptions section below.

Management determined that fourth quarter changes in operating assumptions for the Dolores and Manatial Espejo mines, including but not limited to changes in year-end reserves and resources and mine-life estimates, when considered together with increases to the Company's reserve prices and to Consensus prices, could be indicative of changes in the assets' recoverable amounts significant enough to warrant either reversals of previous impairment charges, or additional impairment charges. As a result, management estimated the recoverable amounts of these mines as at December 31, 2016, determined on a fair value less costs to sell basis, and concluded that the carrying values were supportable and that no impairment charges or reversals were required.

The decrease in metal prices in the later half of 2015 led to the Company lowering its price assumptions used to estimate mineral reserves at year-end. As a result of the year-end reserve price reduction, and observed declines in near-term and mid-term consensus metal prices referenced in the Company's life of mine cash flow models, management concluded that there was an indication of impairment to certain assets in the third and fourth quarter of 2015. Based on the Company's estimation of the recoverable amounts of its mineral properties as at September 30, 2015, and December 31, 2015, determined on a fair value less costs to sell basis, the Company concluded that impairment charges were required during the year in respect of the Dolores, Alamo Dorado, Morococha, and Manantial Espejo mines.

As at December 31, 2015, the Company determined that the $434.3 million Net Carrying Amount of the Dolores mine including mineral properties, plant and equipment, and stockpile inventories, net of associated deferred tax assets and closure and decommissioning liabilities (the "Net Carrying Amount"), was greater than its then estimated recoverable amount of $413.6 million when using a 5.25% risk-adjusted discount rate. Based on the assessment at December 31, 2015, the Company recorded a further impairment charge related to the Dolores mine of $31.7 million before tax ($20.7 million net of tax).

As at December 31, 2015, the Company determined that the $12.9 million Net Carrying Amount of the Alamo Dorado mine was greater than its then estimated recoverable amount of $nil when using a 4.00% risk-adjusted discount rate. Based on this assessment, the Company wrote off the carrying value of the Alamo Dorado mine's mineral property, plant and equipment assets included in the impairment charge of $9.1 million before tax ($6.0 million net of tax).

As at December 31, 2015, the Company determined that the $112.4 million Net Carrying Amount of the Morococha mine was greater than its then-estimated recoverable amount of $36.3 million when using a 6.50% risk-adjusted discount rate. Based on the assessment at December 31, 2015, the Company recorded an impairment charge related to the Morococha mine of $80.7 million before tax ($59.1 million net of tax).

As at September 30, 2015, the Company determined that the Net Carrying Amount of the Manantial Espejo mine of approximately $83.4 million was greater than its then-estimated recoverable amount of $29.9 million, when using an 8.25% risk-adjusted discount rate. Based on this assessment, the Company recorded an impairment charge related to the Manantial Espejo mineral property, plant and equipment assets of $28.8 million before tax ($20.2 million net of tax).

Key assumptions

The metal prices used to calculate the recoverable amounts at December 31, 2016, December 31, 2015 and September 30, 2015 for those assets where impairment or reversal of impairment indicators were determined to be present, are based on analyst consensus prices and the Company's long-term reserve prices, and are summarized in the following tables:

Metal prices used at December 31, 2016

Commodity	Consensus prices				Long term prices
	2017	2018	2019	2020	
Silver - $/oz	$ 19.34	$ 19.65	$ 19.73	$ 20.99	$ 18.50
Gold - $/oz	$ 1,312	$ 1,333	$ 1,324	$ 1,337	$ 1,300
Zinc - $/tonne	$ 2,572	$ 2,637	$ 2,575	$ 2,485	$ 2,200
Lead - $/tonne	$ 2,111	$ 2,143	$ 2,162	$ 2,154	$ 2,000
Copper - $/tonne	$ 5,239	$ 5,555	$ 5,891	$ 6,215	$ 5,000

Metal prices used at December 31, 2015

Commodity	Consensus prices				Long term prices
	2016	2017	2018	2019	
Silver - $/oz	$ 16.01	$ 16.78	$ 17.11	$ 17.56	$ 17.00
Gold - $/oz	$ 1,156	$ 1,174	$ 1,192	$ 1,214	$ 1,180
Zinc - $/tonne	$ 2,026	$ 2,224	$ 2,341	$ 2,465	$ 1,800
Lead - $/tonne	$ 1,836	$ 1,949	$ 1,943	$ 2,011	$ 1,800
Copper - $/tonne	$ 5,219	$ 5,528	$ 5,926	$ 6,087	$ 5,000

Metal prices used at September 30, 2015

Commodity	Consensus prices				Long term prices
	2015	2016	2017	2018	
Silver - $/oz	$ 16.17	$ 16.35	$ 17.35	$ 18.06	$ 18.50
Gold - $/oz	$ 1,183	$ 1,183	$ 1,201	$ 1,227	$ 1,250

The key assumptions in determining the recoverable value of the Company's mineral properties are individual metal prices, operating and capital costs, foreign exchange rates and discount rates. At December 31, 2016, the Company performed a sensitivity analysis on all key assumptions that assumed a modest (10%) adverse change to each individual assumption while holding the other assumptions constant.

At December 31, 2016, an adverse 10% movement in any of the major assumptions in isolation did not cause the recoverable amount to be below the CGU carrying value for any of La Colorada, Alamo Dorado, San Vicente, Huaron, Morococha, or the Navidad project. For the Manantial Espejo mine, which in 2015 had its carrying values adjusted to fair value less cost to sell through impairment charges, a modest increase in operating costs would reduce the recoverable amount below the carrying amount. In the case of the Dolores mine, which in 2015 had its carrying values adjusted to fair value less cost to sell through impairment charges, a modest adverse change in any one key assumption would reduce the recoverable amount below the carrying amount.

At December 31, 2015, an adverse 10% movement in any of the major assumptions in isolation did not cause the recoverable amount to be below the CGU carrying value for any of La Colorada, San Vicente and Huaron. In the case of the Dolores mine, the Alamo Dorado mine, the Manantial Espejo mine, the Morococha mine, and the Navidad project and certain non-core exploration properties, which all have had their carrying values adjusted to fair value less cost to sell through impairment charges, a modest adverse change in any one key assumption would reduce the recoverable amount below the carrying amount.

Gain on sale of mineral properties, plant and equipment for the year ended December 31, 2016 totaled $25.1 million compared to $0.4 million in 2015. The 2016 gains were primarily comprised of an $18.3 million gain recognized on the sale of a portion of the Company's interest in Compania Minera Shalipayco S.A.C. ("Shalipayco") to Votorantim Metais - Cajamarquilla S.A. ("Votorantim"), and a $6.6 million gain recognized in relation to the Maverix Metals Inc. ("Maverix") transaction.

In Q2 2016, the Company sold 75% of the shares in Shalipayco for $15.0 million in cash and a one percent (1%) net smelter returns royalty with a fair value of $3.3 million. Shalipayco is the owner of the Shalipayco zinc development project located in the departments of Pasco and Junin, Peru.

In July 2016, the Company closed its plan of arrangement with Maverix, whereby the Company transferred certain royalties and precious metals streams and payment agreements (the "Portfolio Assets") to Maverix in exchange for an approximately sixty three percent (63%) interest in Maverix on a fully diluted basis (the "Maverix Transaction"). A $6.6 million gain was recorded on the proportion of the Portfolio Assets transferred to owners of Maverix, other than the Company.

Share of loss from associate and dilution gain *f*or the year ended December 31, 2016 was a net gain of $7.9 million, compared to $nil in 2015. With regard to the Maverix Transaction, it was determined that the Company has significant influence over, but does not control Maverix. As such, the investment in Maverix is considered an investment in associate, accounted for using the equity method, whereby the Company records its portion of Maverix's income or loss based on Pan American's fully diluted ownership interest in Maverix. During 2016, a $3.0 million loss was recognized for the Company's portion of Maverix's 2016 estimated losses. Further, in Q4 2016, Pan American exercised share purchase warrants in Maverix, and received replacement warrants in connection with Maverix acquiring additional royalties from Gold Fields Netherlands Services BV, a wholly owned subsidiary of Gold Fields Limited ("Gold Fields"). As a result, Pan American's ownership was diluted to approximately 40% of the total number of the issued and outstanding common shares of Maverix (approximately 43% on a fully-diluted basis). The net result of the transaction was the recognition of an $11.0 million dilution gain in Q4 2016, representing the difference between the fair value of the portion of the Gold Fields assets acquired by the Company and the interest in Maverix lost from dilution.

Investment income for the year ended December 31, 2016 totaled $1.4 million, comparable to $2.5 million in 2015, and continued to consist mainly of interest income and net gains from the sale of securities within the Company’s short-term investment portfolio.

Interest and finance expense for the year ended December 31, 2016 was $9.6 million compared to $8.5 million recorded for the year ended December 31, 2015. The expenses were comprised of accretion of the Company’s closure liabilities and interest and fees associated with the revolving credit facility, short-term loans and leases. The comparable year-over-year amounts were the net result of increased accretion expense related to certain closure liabilities, offset by decreased interest paid as debt balances were reduced during 2016.

Income tax expense for the year ended December 31, 2016 was $74.4 million, which was a $78.6 million increase from the $4.2 million recovery recorded in 2015. The 2016 and 2015 income tax expense and recovery were comprised of current and deferred income taxes as follows:

(In thousands of USD, except as noted)	**2016**	2015
Current tax expense (recovery)		
Recognized in profit or loss in current year	**$ 44,751**	$ 18,079
Adjustments recognized in the current year with respect to prior years	**(720)**	(2,225)
	44,031	15,854
Deferred tax expense (recovery)		
Deferred tax expense (recovery) recognized in the current year	**27,942**	(14,241)
Adjustments recognized in the current year with respect to prior years	**1,124**	(1,747)
Adjustments to deferred tax attributable to changes in tax rates and laws	**1,302**	—
Reduction in deferred tax liabilities due to tax impact of impairment of mineral properties, plant, and equipment	**—**	(44,512)
De-recognition of previously recognized deferred tax assets	**—**	44,218
Benefit from previously unrecognized losses	**(7,861)**	—
Increase in deferred tax liabilities due to tax impact of net realizable value reversal (charge) to inventory	**7,908**	(3,771)
	30,415	(20,053)
Income tax expense (recovery)	**$ 74,446**	$ (4,199)

The increase in income tax expense from 2015 was primarily a consequence of the increase in net earnings in 2016 compared to 2015, and the effects of various temporary and permanent differences. These factors resulted in an effective tax rate that varies considerably from the comparable period, and from the amount that would result from applying the Canadian federal and provincial statutory income tax rates to earnings before income taxes, as shown in the following table:

(In thousands of USD, except as noted)	2016	2015
Earnings (loss) before taxes and non-controlling interest	**$ 176,271**	$ (235,755)
Statutory Canadian income tax rate	**26.00%**	26.00%
Income tax expense (recovery) based on above rates	**$ 45,830**	$ (61,296)
Increase (decrease) due to:		
Non-deductible expenditures	**5,082**	5,683
Foreign tax rate differences	**9,729**	(17,626)
Change in net deferred tax assets not recognized:		
- Argentina exploration expenditures	**1,794**	2,717
- Other deferred tax assets	**(14,406)**	8,800
De-recognition of deferred tax assets previously recognized	**—**	44,218
Non-taxable portion of net earnings of affiliates	**(4,852)**	(4,915)
Changes to temporary differences	**1,429**	(1,767)
Non-taxable unrealized gains on derivative financial instruments	**—**	(72)
Effect of other taxes paid (mining and withholding)	**13,678**	6,628
Effect of foreign exchange on tax expense	**14,323**	12,941
Impairment charges and net realizable value adjustments	**—**	2,219
Other	**1,839**	(1,729)
Income tax expense (recovery)	**$ 74,446**	$ (4,199)
Effective income tax rate	**42.23%**	1.78%

The main factors that affected the effective tax rates for the year ended December 31, 2016 and the comparable period of 2015 were foreign exchange fluctuations, changes in the non-recognition of certain deferred tax assets, mining taxes paid and withholding taxes on payments from foreign subsidiaries and foreign tax rate differences. The Company expects that these and other factors will continue to cause volatility in effective tax rates in the future.

- ***Statement of Cash Flows, 2016 vs. 2015:***

Cash flow from operations for the year ended December 31, 2016 was $214.8 million, $126.1 million more than the $88.7 million generated in 2015. The increase was driven primarily by increased cash revenues, decreased cash production costs, decreased realized FX losses, offset by working capital changes, higher royalties and increased cash G&A expenses. Changes in non-cash operating working capital in 2016 resulted in a use of cash of $5.5 million compared to a source of cash of $19.8 million in 2015.

The net decrease in cash from non-cash working capital movements arose largely on changes in trade and other receivables balances (“Receivables”) and accounts payable and accrued liability balances (“Payables”). Receivables increases in 2016 resulted in a $29.1 million use of cash, a $56.6 million variance to the $27.5 million source of cash in 2015. This was partially offset by increases in Payables in 2016, which increased 2016 cash flows by $13.7 million compared to the $26.8 million decrease to 2015 operating cash flows.

Investing activities utilized $139.9 million for the year ended December 31, 2016, inclusive of $56.9 million generated on net sales of short-term investments. Other investing activities for the year consisted primarily of $202.7 million on mineral properties, plant and equipment investments, and $16.3 million generated on the sale of mineral properties, plant and equipment, which was mainly attributable to the Shalipayco transaction. 2015 investing activities used $52.4 million, inclusive of $91.3 million generated on net sales of short-term investments, $146.7 million of which was spent on mineral properties, plant and equipment at the Company’s various operations and projects.

Financing activities in 2016 used $28.2 million compared to $47.8 million used for the year ended December 31, 2015. Cash used in financing activities during 2016 consisted mainly of $19.5 million of short-term loan repayments and $7.6 million paid as dividends. In 2016 there were also $3.0 million of lease repayments. In 2015, $41.7 million was paid as dividends, $36.2 million was used for the repayment of the convertible debenture offset by a corresponding $36.2 million draw on the revolving credit facility. In 2015 there were also $7.5 million of lease repayments and $2.0 million generated from additional short-term debt proceeds.

- ## *Income Statement: Q4 2016 vs. Q4 2015*

Net earnings of $22.3 million were recorded in Q4 2016 compared to a net loss of $137.0 million in Q4 2015, which corresponds to basic income and losses per share of $0.14 and $0.88 in Q4 2016 and Q4 2015, respectively.

The following table highlights the key items driving the difference between the net earnings in Q4 2016 as compared to the net loss recorded in Q4 2015:

Net loss, three months ended December 31, 2015 (in thousands of USD)			$	(136,958)
Increased revenue:				
Increased realized metal prices	$	37,112		
Lower quantities of metal sold		(9,991)		
Decreased direct selling costs		4,339		
Increased negative settlement adjustments		(3,824)		
Total increase in revenue			**$**	**27,636**
Decreased cost of sales:				
Lower production costs net of increased royalty charges	$	15,206		
Lower depreciation and amortization		13,885		
Total decrease in cost of sales			**$**	**29,091**
Decreased impairment charges				121,512
Increased dilution gain, net of share of loss from associate				8,484
Increased investment income and other expense, net				2,135
Increased net gain on asset sales, commodity contracts and derivatives				404
Decreased general and administrative expense				298
Increased income tax expense				(28,899)
Increased exploration and project development expense				(748)
Increased foreign exchange loss				(470)
Decreased interest and finance expense				(201)
Net earnings, three months ended December 31, 2016			**$**	**22,284**

The $159.2 million quarter-over-quarter increase to net earnings was primarily attributable to the $121.5 million decrease in pre-tax impairment charges, the $29.1 million decrease in cost of sales expense and the $27.6 million increase in revenue, partially offset by the $28.9 million increase in income tax expense.

Revenue for Q4 2016 was $190.6 million, a $27.6 million increase from the $163.0 million of revenue recognized in Q4 2015. The major factors behind the revenue increase were: a $37.1 million price variance from higher metal prices realized for all metals sold; and a $4.3 million decrease in direct selling costs, primarily relating to the 2016 benefit of Argentine export incentives. These factors were partially offset by: a negative $10.0 million variance from lower quantities silver, gold and copper sold, net of higher quantities of zinc and lead sold; and a $3.8 million increase in negative settlement adjustments.

The following table reflects the metal prices realized by the Company and the quantities of metal sold during each quarter:

	Realized Metal Prices				Quantities of Metal Sold	
	Three months ended December 31,				Three months ended December 31,	
		2016		2015	2016	2015
Silver[(1)] – koz	**$**	**17.65**	$	14.66	**6,138**	6,719
Gold[(1)] – koz	**$**	**1,212**	$	1,109	**43.8**	47.3
Zinc[(1)] – kt	**$**	**2,587**	$	1,672	**11.5**	10.2
Lead[(1)] – kt	**$**	**2,178**	$	1,684	**5.0**	3.7
Copper[(1)] – kt	**$**	**5,282**	$	4,871	**3.0**	3.4

[(1)] Metal price stated as dollars per ounce for silver and gold, and dollars per tonne for zinc, lead and copper, inclusive of final settlement adjustments on concentrate sales.

Realized prices for all metals sold increased from those realized in Q4 2015. Increased quarter-over-quarter realized silver and zinc prices of 20% and 55%, respectively, had the most significant impact on increased revenues. Gold, lead, and copper realized prices increased 9%, 29%, and 8%, respectively.

Mine operating earnings of $49.0 million in Q4 2016 were $56.7 million higher than the $7.8 million of mine operating losses recorded in Q4 2015.

The quarter-over-quarter increase was the result of a net $29.1 million decrease in cost of sales combined with the previously discussed $27.6 million increase in revenue. The costs of sales decrease was the result of decreased production costs and depreciation and amortization expense, partially offset by increased royalty costs.

Q4 2016 production costs of $110.5 million were $17.4 million lower than in Q4 2015, primarily attributable to cost reducing NRV inventory adjustments of $10.7 million in Q4 2016, compared to negative, production cost increasing NRV inventory adjustments of $5.0 million in Q4 2015.

Depreciation and amortization expense of $23.0 million in Q4 2016 was $13.9 million lower than in Q4 2015. The reduced depreciation was attributable to the decrease in depreciable assets resulting largely from asset impairment charges taken in 2015, partially offset by the increase in certain depreciable assets, mainly at the Dolores mine.

Royalty costs in Q4 2016 were $8.1 million, $2.2 million higher than in Q4 2015, because of the quarter-over-quarter increases in metal prices discussed above.

Exploration and project development expenses were $3.1 million in Q4 2016 compared to the $2.3 million incurred in Q4 2015. The expenses recorded in each quarter primarily related to exploration and project development activities near the Company's existing mines, at select greenfield projects, and on the holding and maintenance costs associated with the Navidad project, where approximately $0.4 million was spent in Q4 2016 compared to approximately $0.9 million in Q4 2015.

G&A expense was $5.6 million in Q4 2016 compared to $5.9 million recorded in Q4 2015. Share-based compensation was $0.6 million in Q4 2016 compared to $0.2 million in Q4 2015.

FX losses in Q4 2016 were $4.4 million, similar to $4.0 million of losses incurred in Q4 2015. Losses in Q4 2016 were driven primarily by the effect of a 6% devaluation of the MXN and 2% devaluation of ARS on local currency denominated treasury and MXN and VAT receivables balances. The Q4 2015 loss was primarily the result of losses on CAD and ARS denominated treasury balances and MXN and ARS denominated VAT receivables.

Impairments of mining assets were $nil in Q4 2016 compared to $121.5 million before tax ($85.4 million net of tax), in Q4 2015. The Q4 2015 impairments related to the previously discussed 2015 impairments, with the exception of the Manantial Espejo impairment which occurred in Q3 2015.

Share of loss from associate and dilution gain for Q4 2016 was $8.5 million and related to the previously discussed $11.0 million dilution gain, which represents the difference between the Company's portion of the fair value of the Gold Fields assets acquired by Maverix and the reduced interest in Maverix from dilution, partially offset by the Company's portion of Maverix's estimated Q4 2016 based on Pan American's fully diluted ownership interest in Maverix. There is no comparable Q4 2015 amount as the Maverix investment was acquired in 2016.

Interest and finance expense for Q4 2016 was $2.7 million as compared to $2.5 million in Q4 2015, and consisted of accretion of the Company's closure liabilities and interest expense associated with the revolving credit facility, short-term loans and leases.

Income tax expense during Q4 2016 was $20.9 million compared to an income tax recovery of $8.0 million in Q4 2015. The primary reasons for the change in the quarter-over-quarter tax expense (recovery) were the increased taxable income in Q4 2016, the tax impact of impairment charges and the de-recognition of previously recognized deferred tax assets in Q4 2015.The main factors that affected the effective tax rates for Q4 2016 versus the expected statutory rate were similar to those described above for the full year 2016.

• *Statement of Cash Flows: Q4 2016 vs. Q4 2015*

Cash flow from operations in Q4 2016 totaled $45.7 million, $22.3 million more than the $23.4 million generated in Q4 2015. The increase was primarily the result of higher cash mine operating earnings driven entirely by the increase in cash revenues. Also benefiting operating cash flows was a reduction in realized FX losses, partially offset by a $7.2 million increase in income tax payments and a $3.8 million decrease in cash from changes in non-cash operating working capital accounts.

Investing activities utilized $66.5 million in Q4 2016, inclusive of $3.2 million used on the purchase of short-term investments. The balance of Q4 2016 investing activities consisted primarily of spending $56.5 million on mineral property, plant and equipment at the Company's mines and projects, as previously described in the "Operating Performance" section of this MD&A. In Q4 2015, investing activities utilized $35.0 million inclusive of $18.2 million generated on the net sale of short-term investments, and $53.7 million spent on mineral property, plant and equipment additions at the Company's various operations and projects.

Financing activities in Q4 2016 used $7.8 million compared to $8.6 million in Q4 2015. Cash used in financing activities in Q4 2016 consisted of $1.9 million paid as dividends to shareholders, $5.2 million used for short-term debt repayments, and $0.7 million of lease repayments. In Q4 2015, $7.6 million of dividends were paid, $0.4 million was used for short-term debt repayment (net of proceeds), and $0.6 million of lease payments were made. The $36.2 million repayment of convertible debentures in Q4 2015 was offset by a corresponding $36.2 million draw on the revolving credit facility in Q4 2015.

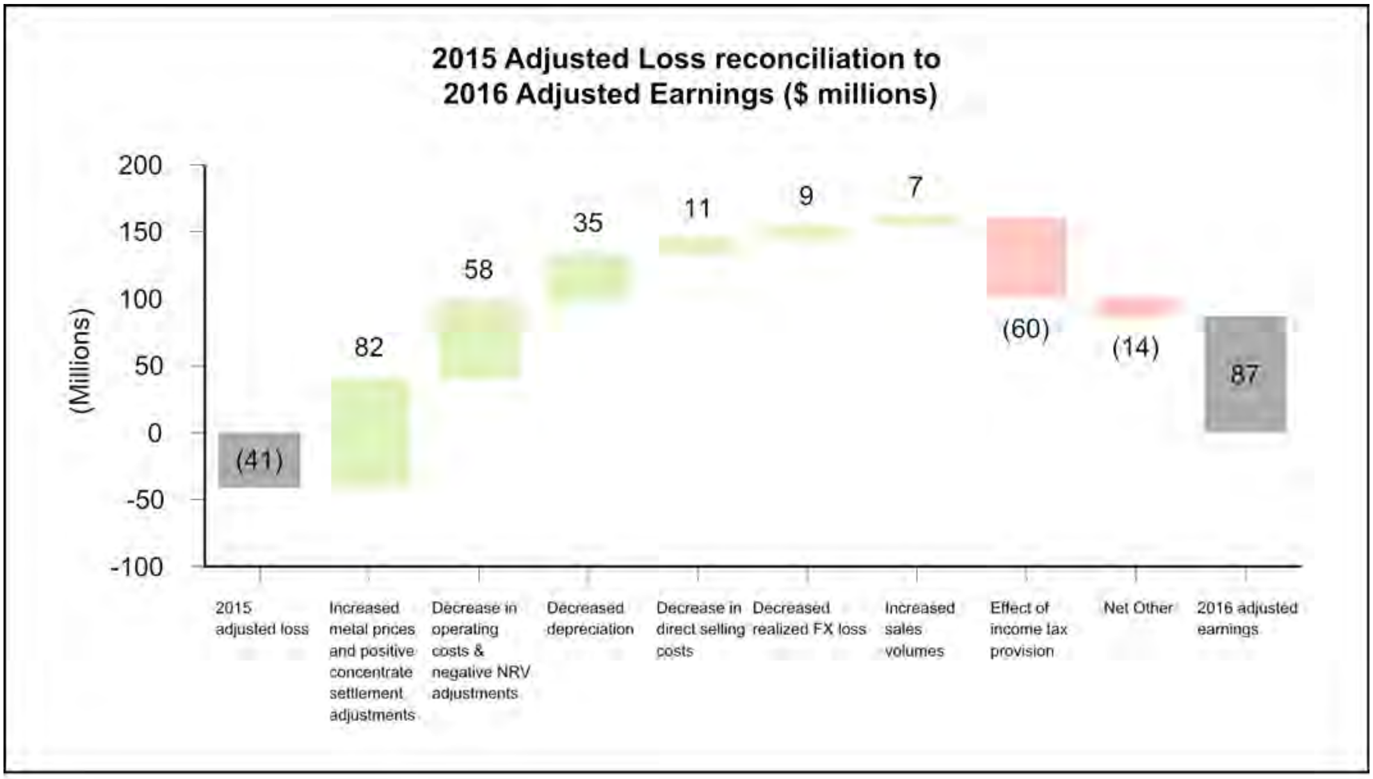
• *2016 and Q4 2016 Adjusted Earnings*

Adjusted earnings and basic adjusted earnings per share are non-GAAP measures that the Company considers to better reflect normalized earnings as it eliminates items that may be volatile from period to period, relate to positions that will settle in future periods. Neither adjusted earnings nor basic adjusted earnings per share have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other companies.

Please refer to the section of this MD&A entitled "Alternative Performance (Non-GAAP) Measures" for a detailed description of "adjusted earnings" and "basic adjusted earnings per share", and a reconciliation of these annual and fourth quarter measures to the 2016 Financial Statements.

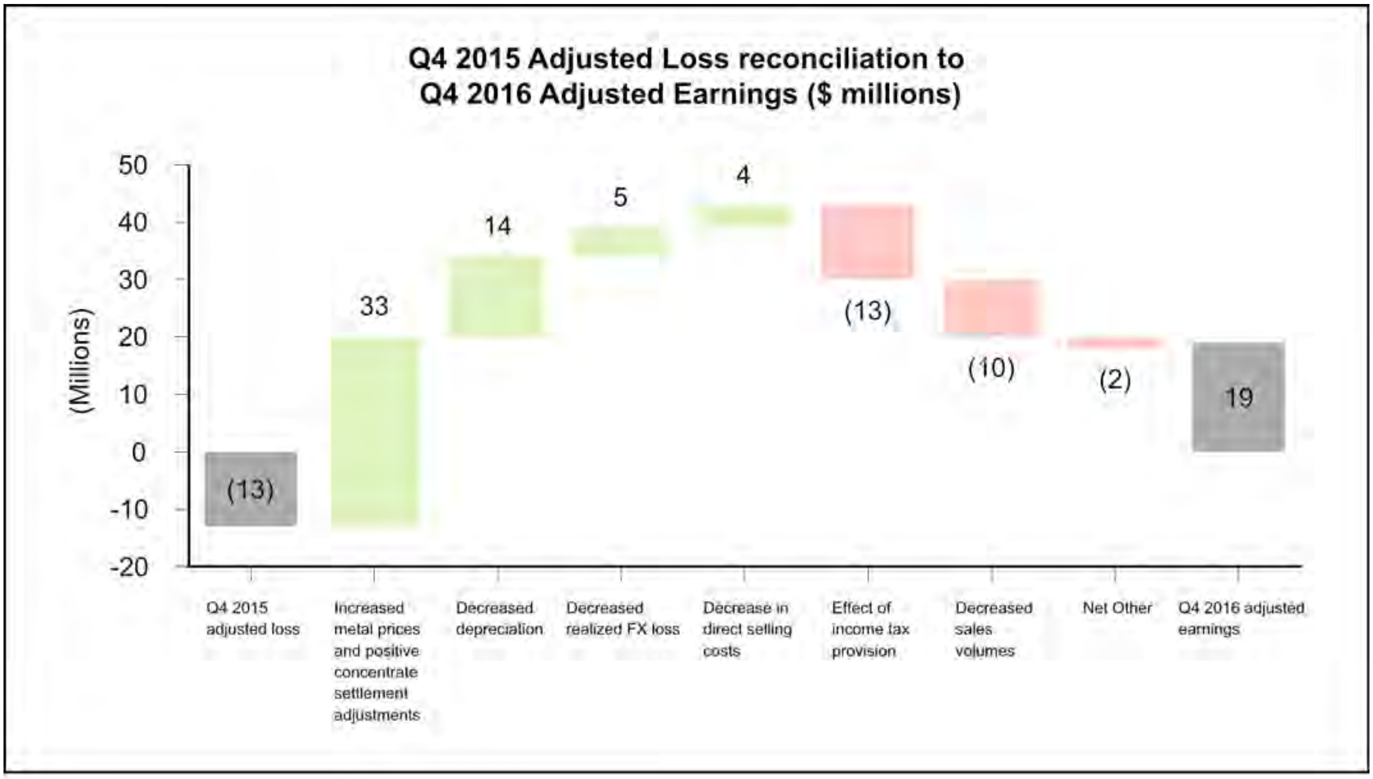
Annual Adjusted Earnings in 2016 were $86.6 million, representing a basic adjusted earnings per share of $0.57, which was $127.9 million, or $0.84 per share, higher than 2015 adjusted net loss of $41.3 million, and basic loss per share of $0.27, respectively.

The following chart illustrates the key factors leading to the change from adjusted net loss for the year ended December 31, 2015 to the adjusted earnings achieved in 2016:



Adjusted Earnings in Q4 2016 was $19.0 million, representing a basic adjusted earnings per share of $0.12, which was $31.7 million, or $0.20 per share, higher than Q4 2015 adjusted loss of $12.7 million, and basic loss per share of $0.08, respectively.

The following chart illustrates the key factors leading to the change from the Q4 2015 adjusted net losses to the adjusted earnings for Q4 2016:



LIQUIDITY POSITION

The Company's cash and cash equivalents balance at December 31, 2016 was $180.9 million, which was an increase of $46.9 million from the balance at December 31, 2015. The Company's short-term investments balance at December 31, 2016, was $36.7 million, which was a decrease of $55.9 million from the $92.7 million balance at December 31, 2015. The modest decrease in liquidity in 2016 of $9.0 million was necessary to supplement operating cash flows of $214.8 million and $16.3 million in asset sale proceeds in order to fund $202.7 million of mineral properties, plant and equipment investments, $22.6 million of short-term debt and lease repayments, $7.6 million in dividend payments and $5.5 million used to settle Maverix warrants.

Pan American's investment objectives for its cash balances are to preserve capital, to provide liquidity and to maximize returns. The Company's strategy to achieve these objectives is to invest excess cash balances in a portfolio of primarily fixed income instruments with specified credit rating targets established by the Board of Directors, and by diversifying the currencies in which it maintains its cash balances. The Company does not own any asset-backed commercial paper or other similar, known, at-risk investments in its investment portfolio.

Working capital at December 31, 2016, was $428.6 million, which was an increase of $36.4 million from December 31, 2015 working capital of $392.2 million. The increase in working capital was mainly attributable to increased trade and other receivables and inventories of $43.1 million and $33.0 million, respectively, and a $19.6 million decrease in short term debt, partially offset by a $30.7 million increase in accounts payable and accrued liabilities, a $22.3 million increase in net current tax liabilities, and the previously discussed $9.0 million decrease in cash and short-term investments.

On April 15, 2015 the Company entered into a $300.0 million secured revolving credit facility with a 4-year term (the "Credit Facility") and upfront costs of $3.0 million. On May 31, 2016, the Company amended its Credit Facility by extending the term by one year, with additional upfront costs of $0.4 million. As part of the amendment, the financial covenants were amended to require the Company to maintain a tangible net worth (exclusive of any prospective write-downs of certain assets) of greater than $1,036.4 million plus 50% of the positive net earnings for each subsequent fiscal quarter. In addition, the financial covenants continue to include the requirement for the Company to maintain a leverage ratio less than or equal to 3.5:1 and an interest coverage ratio more than or equal to 3.0:1. As of December 31, 2016 the Company was in compliance with all covenants required by the Credit Facility.

The terms of the Credit 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. On December 29, 2015, the Company made a $36.2 million drawdown on the Credit Facility by way of LIBOR loan at an annual rate of 2.55%. As of December 31, 2016, and at the date of this MD&A, $36.2 million remained drawn on the Credit Facility through LIBOR loans with an average annual rate of 2.55%.

The Company's financial position at December 31, 2016, and the operating cash flows that are expected over the next twelve months lead management to believe that the Company's liquid assets are sufficient to satisfy our 2016 working capital requirements, fund currently planned capital expenditures, and to discharge liabilities as they come due. The Company remains well positioned to take advantage of further strategic opportunities as they become available. Liquidity risks are discussed further in the "Risks and Uncertainties" section of this MD&A.

The impact of inflation on the Company's financial position, operational performance, or cash flows over the next twelve months cannot be determined with any degree of certainty.

CAPITAL RESOURCES

Total attributable shareholders' equity at December 31, 2016, was $1,396.3 million, an increase of $99.1 million from December 31, 2015, primarily because of the $100.1 million net earnings attributable to shareholders for the year ended December 31, 2016, $7.6 million in dividends paid, and a $5.7 million impact of share-based compensation in 2016. As of December 31, 2016, the Company had approximately 152.3 million common shares outstanding for a share capital balance of $2,304.0 million (December 31, 2015, 151.9 million and $2,298.4 million). The basic weighted average number of common shares outstanding was 152.1 million and 151.7 million for the years ended December 31, 2016, and 2015, respectively.

As at December 31, 2016, the Company had approximately 1.3 million stock options outstanding (each exercisable for one common share of the Company), with exercise prices in the range of CAD $9.76 to CAD $40.22 and a weighted average life of 50 months. Approximately 1.0 million of the stock options were vested and exercisable at December 31, 2016, with an average weighted exercise price of CAD $18.02 per share.

The following table sets out the common shares and options outstanding as at the date of this MD&A:

	Outstanding as at March 22, 2017
Common shares	153,106,664
Options	1,043,294
Total	**154,149,958**

FINANCIAL INSTRUMENTS

A part of the Company's operating and capital expenditures is denominated in local currencies other than USD. These expenditures are exposed to fluctuations in USD exchange rates relative to the local currencies. From time to time, the Company mitigates part of this currency exposure by accumulating local currencies, entering into contracts designed to fix or limit the Company's exposure to changes in the value of local currencies relative to the USD, or assuming liability positions to offset financial assets subject to currency risk. The Company held cash and short-term investments of $6.5 million in CAD, $9.4 million in MXN, $0.8 million in PEN, $3.5 million in ARS, and $4.3 million in BOB at December 31, 2016. Risks relating to FX rates are discussed in the "Risks and Uncertainties" section of this MD&A.

At December 31, 2016, the Company had outstanding collars made up of put and call contracts on its foreign currency exposure of MXN purchases with a nominal value of $81.0 million and settlement dates between January 2017 and December 2017. The positions have a weighted average floor of $19.36 and an average cap of $22.91. The Company recorded losses of $0.8 million and $0.2 million on the MXN forward contracts for the three months ended December 31, 2016 and 2015, respectively, and losses of $1.5 million and $0.2 million during the year ended December 31, 2016 and 2015, respectively.

From time to time, Pan American mitigates the price risk associated with its base metal production by committing some of its future production under forward sales or option contracts. Risks relating to metal prices and hedging activities undertaken in relation to metal prices are discussed in the "Risks and Uncertainties" section of this MD&A.

During 2016, in order to limit its exposure to lower zinc prices on a portion of its zinc production, the Company used put and call contracts to collar the prices on 22,115 tonnes of zinc, of which contracts for 10,265 tonnes remained outstanding at December 31, 2016. The outstanding contracts have a weighted average floor and cap of $2,043 and $2,887, respectively. The outstanding contracts have settlement dates between January 2017 and December 2017. The Company recorded losses of $1.1 million and $nil on zinc positions during the three months ended December 31, 2016 and 2015, respectively, and losses of $4.3 million and $nil on zinc positions during the year ended December 31, 2016 and 2015, respectively.

Further, in 2016, in order to limit its exposure to lower lead prices on a portion of its lead production, the Company used put and call contracts to collar the prices on 3,720 tonnes of lead, of which contracts for 620 tonnes remained outstanding at December 31, 2016. The outstanding contracts have a fixed minimum price of $1,650 and a maximum price of $1,965 per tonne. The outstanding contracts have settlement dates between January 2017 and February 2017. The Company recorded gains of $0.1 million and $nil on lead positions during the three months ended December 31, 2016 and 2015, respectively, and losses of $0.2 million and $nil on lead positions during the years ended December 31, 2016 and 2015, respectively.

During Q1 2015, the Company entered into diesel swap contracts designed to fix or 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 the fourth quarter of 2015, the Company entered into additional Diesel Swaps with an initial notional value of $12.5 million. A total of $nil of the notional amounts of the Diesel Swaps remained outstanding as of December 31, 2016. The Company recorded losses of $nil and $2.4 million on the Diesel Swaps during the three months ended December 31, 2016, and 2015; and recorded gains of $1.0 million and losses of $3.1 million during the years ended December 31, 2016 and 2015, respectively.

Other than the contracts described above, there were no other gains or losses on any commodity or foreign currency contracts in either the three or twelve months ended December 31, 2016 and 2015.

The Company maintains short-term bank loans in Argentina, which at December 31, 2016, had a balance outstanding of $nil million (December 31, 2015 - $19.6 million). These loans were denominated in ARS as at December 31, 2016, and were drawn for the purposes of short-term cash management and to partially offset the FX exposure of holding local currency denominated financial assets.

Derivative financial assets and liabilities are measured at fair value. Cash and cash equivalents, short-term investments, accounts receivable, accounts payable and accrued liabilities approximate their fair value due to the relatively short periods to maturity of these financial instruments.

The Company had the right to pay all or part of the liability associated with the Company's previously outstanding convertible notes in cash on the conversion date. Accordingly, the Company classified the convertible notes as a financial liability with an embedded derivative. The financial liability and embedded derivative were recognized initially at their respective fair values. The embedded derivative was recognized at fair value with changes in fair value reflected in profit or loss and the debt liability component recognized at amortized cost using the effective interest method. Interest gains and losses related to the debt liability component or embedded derivatives were recognized in profit or loss.

During the fourth quarter of 2015, the Company recorded a gain (loss) on the revaluation of the conversion feature of the convertible notes of $nil. For the year ended December 31, 2015, the Company recorded a gain on the revaluation of the conversion feature of the convertible notes of $0.3 million.

Fair value estimates are made at a specific point in time, based on relevant market information and information about the financial instrument. These estimates are subjective in nature and involve uncertainties and matters of significant judgment and, therefore, cannot be determined with precision. Changes in assumptions could significantly affect the estimates. The classification of financial instruments and the significant assumptions made in determining the fair value of financial instruments are described in Note 7 of the 2016 Financial Statements.

CLOSURE AND DECOMMISSIONING COST PROVISION

The estimated future closure and decommissioning costs are based principally on the requirements of relevant authorities and the Company's environmental policies. The provision is measured using management's assumptions and estimates for future cash outflows. The Company accrues these costs, which are determined by discounting costs using rates specific to the underlying obligation. Upon recognition of a liability for the closure and decommissioning costs, the Company capitalizes these costs to the related mine and amortizes such amounts over the life of each mine on a unit-of-production basis except in the case of exploration projects for which the offset to the liability is expensed. The accretion of the discount due to the passage of time is recognized as an increase in the liability and a finance expense.

The total inflated and undiscounted amount of estimated cash flows required to settle the Company's estimated future closure and decommissioning costs is $122.1 million (2015 - $107.2 million) which has been inflated using inflation rates of between 1% and 23% (2015 - between 1% and 17%). The inflated and discounted provision on the statement of financial position as at December 31, 2016, using discount rates between 1% and 30% (2015 - between 1% and 20%), is $55.6 million (2015 - $50.5 million). Spending with respect to decommissioning obligations at the Alamo Dorado and Manantial Espejo mines began in 2016, while the remainder of the obligations are expected to be paid through 2040 or later if mine life is extended. Revisions made to the reclamation obligations in 2016 were primarily a result of increased site disturbance from the ordinary course of operations at the mines as well as revisions to the estimates based on periodic reviews of closure plans and related costs, actual expenditures incurred, and concurrent closure activities completed. These obligations will be funded from operating cash flows, reclamation deposits, and cash on hand.

The accretion of the discount charged to 2016 earnings as finance expense was $4.4 million (2015 - $3.2 million). Reclamation expenditures incurred during the current year were $6.1 million (2015 - $2.8 million).

CONTRACTUAL COMMITMENTS AND CONTINGENCIES

The Company does not have any off-balance sheet arrangements or commitments that have a current or future effect on its financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources, that are material. The Company had the following contractual obligations at December 31, 2016:

	Payments due by period				
(In thousands of USD, except as noted)	**Total**	**Within 1 year[1]**	**2 - 3 years**	**4- 5 years**	**After 5 years**
Current liabilities	$ 141,002	$ 141,002	$ —	$ —	$ —
Credit facility	38,440	960	1,280	36,200	—
Finance lease obligations[2]	7,321	3,720	3,601	—	—
Severance accrual	3,986	689	658	365	2,274
Employee compensation[3]	6,918	3,996	2,922	—	—
Loss on commodity contracts	2,815	2,815	—	—	—
Provisions[4]	4,719	3,262	562	629	266
Income taxes payable	25,911	25,911	—	—	—
Total contractual obligations[4]	**$ 231,112**	**$ 182,355**	**$ 9,023**	**$ 37,194**	**$ 2,540**

[1] Includes all current liabilities as per the statement of financial position plus items presented separately in this table that are expected to be paid but not accrued in December 31, 2016 statement of financial position of the Company. A reconciliation of the current liabilities balance per the statement of financial position to the total contractual obligations within one year per the contractual maturities schedule, is shown in the table below.

December 31, 2016		**Future interest component**	**Within 1 year**
Current portion of:			
Accounts payable and other liabilities	$ 141,002	$ —	**$ 141,002**
Credit facility	—	960	**960**
Current portion of finance lease	3,559	161	**3,720**
Current severance liability	689	—	**689**
Employee Compensation & RSU’s	1,812	2,184	**3,996**
Unrealized loss on commodity contracts	2,815	—	**2,815**
Provisions[4]	3,262	—	**3,262**
Income tax payable	25,911	—	**25,911**
Total contractual obligations within one year[4]	$ 179,050	$ 3,305	**$ 182,355**

[2] Includes lease obligations in the amount of $7.3 million (December 31, 2015 - $4.1 million) with a net present value of $7.1 million (December 31, 2015 - $4.0 million) discussed further in Note 17 of the 2016 Financial Statements.

[3] Includes RSU obligation in the amount of $4.8 million (December 31, 2015 – $2.5 million) that will be settled in cash or shares. The restricted share units vest in two installments, 50% in December 2016, and 50% in December 2017.

[4] Amounts above do not include payments related to the Company’s anticipated closure and decommissioning obligation or the deferred credit arising from the Aquiline acquisition discussed in Notes 16 and 19 of the 2016 Financial Statements.

RELATED PARTY TRANSACTIONS

The Company’s related parties include its subsidiaries, associates over which it exercises significant influence, and key management personnel. During its normal course of operation, the Company enters into transactions with its related parties for goods and services. All related party transactions for the years ended December 31, 2016 and 2015 have been disclosed in the 2016 Financial Statements. Related party transactions with Maverix have been disclosed in Note 12 of the 2016 Financial Statements.

During 2016, a former director of the Company was paid approximately $0.1 million for consulting services. During 2015, a company indirectly owned by a trust of which another former director of the Company is a beneficiary, was paid approximately $1.4 million for consulting services. These transactions were in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the parties. There are no ongoing contractual or other commitments associated with this arrangement or with another related party.

ALTERNATIVE PERFORMANCE (NON-GAAP) MEASURES

- ***AISCSOS***

AISCSOS is a non-GAAP financial measure. AISCSOS does not have any standardized meaning prescribed by IFRS and is therefore unlikely to be comparable to similar measures presented by other companies. We believe that AISCSOS reflects a comprehensive measure of the full cost of operating our consolidated business given it includes the cost of replacing silver ounces through exploration, the cost of ongoing capital investments (sustaining capital), general and administrative expenses, as well as other items that affect the Company's consolidated cash flow. To facilitate a better understanding of this measure as calculated by the Company, the following table provides the detailed reconciliation of this measure to the applicable cost items, as reported in the consolidated income statements for the respective periods:

		Three months ended December 31,		Twelve months ended December 31,	
(In thousands of USD, except as noted)		**2016**	2015	**2016**	2015
Direct operating costs		**$ 120,496**	$ 122,845	**$ 472,806**	$ 521,169
Net realizable value ("NRV") inventory adjustments	**A**	**(10,715)**	5,028	**(42,815)**	10,861
Production costs [1]		**$ 109,781**	$ 127,873	**$ 429,991**	$ 532,031
Royalties		**8,142**	5,941	**31,608**	23,901
Direct selling costs [2]		**20,656**	24,995	**80,319**	90,858
Less by-product credits[2]		**(109,571)**	(92,138)	**(424,442)**	(377,954)
Cash cost of sales net of by-products [3]		**$ 29,009**	$ 66,671	**$ 117,476**	$ 268,835
Sustaining capital[4]		**$ 24,976**	$ 23,476	**$ 89,394**	$ 73,701
Exploration and project development		**3,068**	2,320	**11,334**	11,940
Reclamation cost accretion		**1,090**	810	**4,363**	3,239
General and administrative expense		**5,592**	5,890	**23,663**	18,027
All-in sustaining costs[3]	**B**	**$ 63,735**	$ 99,167	**$ 246,230**	$ 375,744
Payable ounces sold (in thousands)	**C**	**6,138.2**	6,719.5	**24,199.5**	25,179.8
All-in sustaining cost per silver ounce sold, net of by-products	**B/C**	**$ 10.38**	$ 14.76	**$ 10.17**	$ 14.92
All-in sustaining cost per silver ounce sold, net of by-products (excludes NRV adjustments)	**(B-A)/ C**	**$ 12.13**	$ 14.01	**$ 11.94**	$ 14.49

[1] For the purposes of AISCSOS, Alamo Dorado production costs for the three and twelve month periods ended December 31, 2016 have been decreased by $0.6 million and increased by $1.7 million, respectively, to exclude non-cash adjustments to the closure and decommissioning liabilities that are included in production costs as presented in the consolidated statements of income.

[2] Included in the revenue line of the annual and interim consolidated income statements and are reflective of realized metal prices for the applicable periods.

[3] Totals may not add due to rounding.

[4] Please refer to the table below.

As part of the AISCSOS measure, sustaining capital is included while expansionary or acquisition capital (referred to by the Company as non-sustaining capital) is not. Inclusion of sustaining capital only is a measure of capital costs associated with current ounces sold as opposed to investment capital, which is expected to increase future production. For the periods under review, the items noted below are associated with the La Colorada expansion project, the Dolores' leach pad and other expansionary expenditures considered to be investment capital projects.

Reconciliation of payments for mineral properties, plant and equipment and sustaining capital	Three months ended December 31,		Twelve months ended December 31,	
(in thousands of USD)	**2016**	2015	**2016**	2015
Payments for mineral properties, plant and equipment[1]	**$ 56,477**	$ 53,705	**$ 202,662**	$ 146,735
Add/(Subtract)				
Advances received for leases	**2,213**	2,571	**6,151**	3,491
Non-Sustaining capital (Dolores, La Colorada projects, and other)	**(33,714)**	(32,800)	**(119,418)**	(76,524)
Sustaining Capital[2]	**$ 24,976**	$ 23,476	**$ 89,394**	$ 73,702

[1] As presented on the annual and interim consolidated statements of cash flows.
[2] Totals may not add due to rounding

Three months ended December 31, 2016									
(In thousands of USD, except as noted)	La Colorada	Dolores	Alamo Dorado	Huaron	Morococha	San Vicente	Manantial Espejo	PASCORP	Consolidated
Direct operating costs	14,674	28,664	7,266	17,991	15,547	10,016	26,336		120,496
NRV inventory adjustments	—	(6,350)	2,224	—	—	—	(6,589)		(10,715)
Production costs	14,674	22,314	9,490	17,991	15,547	10,016	19,747		109,781
Royalties	135	1,604	33	—	—	5,598	772		8,142
Direct selling costs	3,712	23	125	7,735	5,643	4,634	(1,215)		20,656
Less by-product credits	(12,238)	(32,868)	(1,609)	(21,206)	(18,379)	(5,372)	(17,898)		(109,571)
Cash cost of sales net of by-products [1]	**6,283**	**(8,927)**	**8,039**	**4,520**	**2,812**	**14,876**	**1,406**		**29,009**
Sustaining capital	2,229	10,772	—	4,355	4,892	1,631	1,097		24,976
Exploration and project development	31	628	—	576	109	—	—	1,723	3,068
Reclamation cost accretion	72	179	104	126	86	54	433	37	1,090
General & administrative expense	—	—	—	—	—	—	—	5,592	5,592
All-in sustaining costs[1]	8,615	2,652	8,144	9,576	7,899	16,561	2,935	7,352	63,735
Payable ounces sold (thousand)	**1,561**	**895**	**286**	**759**	**526**	**1,332**	**779**		**6,138**
All-in sustaining cost per silver ounce sold, net of by-products	**$ 5.52**	**$ 2.96**	**$ 28.44**	**$ 12.62**	**$ 15.02**	**$ 12.43**	**$ 3.77**		**$ 10.38**
All-in sustaining cost per silver ounce sold, net of by-products (excludes NRV adjustments)	**$ 5.52**	**$ 10.06**	**$ 20.68**	**$ 12.62**	**$ 15.02**	**$ 12.43**	**$ 12.22**		**$ 12.13**

[1] Totals may not add due to rounding.

Twelve months ended December 31, 2016									
(In thousands of USD, except as noted)	La Colorada	Dolores	Alamo Dorado	Huaron	Morococha	San Vicente	Manantial Espejo	PASCORP	Consolidated
Direct operating costs	50,879	121,162	40,172	67,911	58,868	34,959	98,856		472,806
NRV inventory adjustments	—	(22,434)	1,173	—	—	—	(21,554)		(42,815)
Production costs	50,879	98,728	41,345	67,911	58,868	34,959	77,302		429,991
Royalties	401	6,224	235	—	—	20,929	3,818		31,608
Direct selling costs	13,554	107	376	32,443	25,702	15,697	(7,562)		80,319
Less by-product credits	(34,737)	(123,811)	(13,156)	(77,754)	(74,754)	(15,774)	(84,456)		(424,442)
Cash cost of sales net of by-products [1]	**30,098**	**(18,751)**	**28,800**	**22,600**	**9,817**	**55,811**	**(10,898)**		**117,476**
Sustaining capital	10,545	48,079	—	11,994	10,945	4,963	2,868		89,394
Exploration and project development	186	1,792	—	837	1,053	—	—	7,465	11,334
Reclamation cost accretion	287	714	416	505	345	218	1,731	148	4,363
General & administrative expense	—	—	—	—	—	—	—	23,663	23,663
All-in sustaining costs[1]	41,116	31,834	29,216	35,935	22,159	60,991	(6,299)	31,276	246,230
Payable ounces sold (thousand)	**5,486**	**3,839**	**1,967**	**3,233**	**2,377**	**4,264**	**3,033**		**24,200**
All-in sustaining cost per silver ounce sold, net of by-products	**$ 7.49**	**$ 8.29**	**$ 14.85**	**$ 11.11**	**$ 9.32**	**$ 14.30**	**$ (2.08)**		**$ 10.17**
All-in sustaining cost per silver ounce sold, net of by-products (excludes NRV adjustments)	**$ 7.49**	**$ 14.14**	**$ 14.26**	**$ 11.11**	**$ 9.32**	**$ 14.30**	**$ 5.03**		**$ 11.94**

[1] Totals may not add due to rounding.

Three months ended December 31, 2015									
(In thousands of USD, except as noted)	La Colorada	Dolores	Alamo Dorado	Huaron	Morococha	San Vicente	Manantial Espejo	PASCORP	Consolidated
Direct operating costs	11,454	29,065	14,034	16,999	14,707	11,747	24,837		122,845
NRV inventory adjustments	—	3,132	684	—	—	—	1,212		5,028
Production costs	11,454	32,198	14,718	16,999	14,707	11,747	26,049		127,873
Royalties	73	1,225	97	—	—	3,542	1,004		5,941
Direct selling costs	3,009	31	252	7,451	7,711	4,615	1,926		24,995
Less by-product credits	(5,415)	(21,110)	(9,369)	(14,752)	(15,587)	(5,031)	(20,874)		(92,138)
Cash cost of sales net of by-products [1]	**9,121**	**12,344**	**5,698**	**9,698**	**6,831**	**14,873**	**8,105**		**66,671**
Sustaining capital	2,965	10,064	—	4,599	2,516	996	2,337		23,476
Exploration and project development	172	86	—	53	722	—	—	1,287	2,320
Reclamation cost accretion	59	90	58	150	96	56	274	26	810
General & administrative expense	—	—	—	—	—	—	—	5,890	5,890
All-in sustaining costs[1]	12,317	22,585	5,756	14,500	10,165	15,925	10,716	7,202	99,167
Payable ounces sold (thousand)	**1,263**	**1,048**	**726**	**774**	**483**	**1,448**	**978**		**6,719**
All-in sustaining cost per silver ounce sold, net of by-products	**$ 9.75**	**$ 21.55**	**$ 7.93**	**$ 18.74**	**$ 21.02**	**$ 11.00**	**$ 10.96**		**$ 14.76**
All-in sustaining cost per silver ounce sold, net of by-products (excludes NRV adjustments)	**$ 9.75**	**$ 18.56**	**$ 6.98**	**$ 18.74**	**$ 21.02**	**$ 11.00**	**$ 9.72**		**$ 14.01**

[1] Totals may not add due to rounding.

	Twelve months ended December 31, 2015								
(In thousands of USD, except as noted)	La Colorada	Dolores	Alamo Dorado	Huaron	Morococha	San Vicente	Manantial Espejo	PASCORP	Consolidated
Direct operating costs	48,842	132,343	60,159	66,878	66,096	32,211	114,640		521,169
NRV inventory adjustments		(11,417)	(522)				22,800		10,861
Production costs	48,842	120,926	59,637	66,878	66,096	32,211	137,440		532,031
Royalties	385	5,289	344	—	—	14,051	3,832		23,901
Direct selling costs	11,877	132	682	26,986	31,424	11,147	8,609		90,858
Less by-product credits	(22,585)	(96,066)	(23,446)	(58,027)	(68,480)	(13,047)	(96,302)		(377,954)
Cash cost of sales net of by-products [(1)]	**38,519**	**30,281**	**37,217**	**35,837**	**29,041**	**44,362**	**53,579**		**268,836**
Sustaining capital	9,869	25,162	—	13,610	7,713	3,286	14,061		73,701
Exploration and project development	254	544	—	765	1,202	—	—	9,175	11,940
Reclamation cost accretion	237	362	232	600	384	226	1,096	103	3,239
General & administrative expense	—	—	—	—	—	—	—	18,027	18,027
All-in sustaining costs[(1)]	48,879	56,348	37,450	50,813	38,339	47,873	68,736	27,305	375,744
Payable ounces sold (thousand)	**5,109**	**4,448**	**2,944**	**3,009**	**1,995**	**4,019**	**3,655**		**25,180**
All-in sustaining cost per silver ounce sold, net of by-products	**$ 9.57**	**$ 12.67**	**$ 12.72**	**$ 16.89**	**$ 19.21**	**$ 11.91**	**$ 18.81**		**$ 14.92**
All-in sustaining cost per silver ounce sold, net of by-products (excludes NRV adjustments)	**$ 9.57**	**$ 15.24**	**$ 12.90**	**$ 16.89**	**$ 19.21**	**$ 11.91**	**$ 12.57**		**$ 14.49**

(1) Totals may not add due to rounding.

• *Cash Costs per Ounce of Silver, net of by-product credits*

Pan American produces by-product metals incidentally to our silver mining activities. We have adopted the practice of calculating the net cost of producing an ounce of silver, our primary payable metal, after deducting revenues gained from incidental by-product production, as a performance measure. This performance measurement has been commonly used in the mining industry for many years and was developed as a relatively simple way of comparing the net production costs of the primary metal for a specific period against the prevailing market price of that metal.

Cash costs per ounce metrics, net of by-product credits, is used extensively in our internal decision making processes. We believe the metric is also useful to investors because it facilitates comparison, on a mine-by-mine basis, notwithstanding the unique mix of incidental by-product production at each mine, of our operations' relative performance on a period-by-period basis, and against the operations of our peers in the silver industry on a consistent basis. Cash costs per ounce is conceptually understood and widely reported in the silver mining industry. However, cash cost per ounce of silver is a non-GAAP measure and does not have a standardized meaning prescribed by GAAP and the Company's method of calculating cash costs may differ from the methods used by other entities.

To facilitate a better understanding of these measures as calculated by the Company, the following table provides the detailed reconciliation of these measures to the production costs, as reported in the consolidated income statements for the respective periods:

Total Cash Costs per ounce of Payable Silver, net of by-product credits		**Three months ended December 31,**		**Twelve months ended December 31,**	
(in thousands of U.S. dollars except as noted)		**2016**	2015	**2016**	2015
Production costs		**$ 110,466**	$ 127,873	**$ 428,333**	$ 532,031
Add/(Subtract)					
Royalties		**8,142**	5,941	**31,608**	23,901
Smelting, refining, and transportation charges		**22,204**	24,319	**91,371**	94,804
Worker's participation and voluntary payments		**(876)**	62	**(3,397)**	(147)
Change in inventories		**(3,473)**	(3,115)	**(11,937)**	(19,114)
Other		**358**	882	**(5,660)**	(6,537)
Non-controlling interests [1]		**(811)**	(1,072)	**(3,358)**	(4,331)
Metal inventories recovery (write-down)		**10,715**	(5,028)	**42,815**	(10,861)
Cash Operating Costs before by-product credits[2]		**146,725**	149,860	**569,775**	609,746
Less gold credit		**(52,888)**	(52,562)	**(227,196)**	(208,800)
Less zinc credit		**(28,486)**	(15,855)	**(93,428)**	(66,831)
Less lead credit		**(11,226)**	(6,477)	**(35,890)**	(24,488)
Less copper credit		**(14,667)**	(17,030)	**(63,404)**	(71,635)
Cash Operating Costs net of by-product credits [2]	**A**	**39,457**	57,936	**149,857**	237,992
Payable Silver Production (koz)	**B**	**5,924.8**	6,370.8	**23,817.9**	24,530.8
Cash Costs per ounce net of by-product credits	**A/B**	**$ 6.66**	$ 9.09	**$ 6.29**	$ 9.70

[1] Figures presented in the reconciliation table above are on a 100% basis as presented in the consolidated financial statements with an adjustment line item to account for the portion of the Morococha and San Vicente mines owned by non-controlling interests, an expense item not included in operating cash costs. The associated tables below are for the Company's share of ownership only.

[2] Figures in this table and in the associated tables below may not add due to rounding.

Three months ended December 31, 2016 [1]
(in thousands of USD except as noted)

		La Colorada	Dolores	Alamo Dorado	Huaron	Morococha	San Vicente	Manantial Espejo	Consolidated Total
Cash Costs before by-product credits	**A**	**$ 19,118**	**29,875**	**$ 10,704**	**$ 25,766**	**$ 19,496**	**$ 14,034**	**$ 26,259**	**$ 145,251**
Less gold credit	b1	(841)	(35,183)	(1,690)	—	(165)	(86)	(14,905)	**(52,870)**
Less zinc credit	b2	(7,801)	—	—	(11,056)	(7,361)	(1,568)	—	**(27,787)**
Less lead credit	b3	(3,513)	—	—	(6,005)	(1,444)	(136)	—	**(11,098)**
Less copper credit	b4	—	—	31	(5,122)	(7,849)	(1,095)	—	**(14,035)**
Sub-total by-product credits	**B=(b1+ b2+ b3+ b4)**	**$ (12,155)**	**$ (35,183)**	**$ (1,659)**	**$ (22,183)**	**$ (16,819)**	**$ (2,885)**	**$ (14,905)**	**$ (105,790)**
Cash Costs net of by-product credits	C=(A+B)	$ 6,962	$ (5,308)	$ 9,046	$ 3,583	$ 2,676	$ 11,149	$ 11,354	**$ 39,462**
Payable ounces of silver (thousand)	D	1,588	895	397	789	485	994	777	**5,925**
Cash cost per ounce net of by-products	**C/D**	**$ 4.38**	**$ (5.93)**	**$ 22.80**	**$ 4.54**	**$ 5.52**	**$ 11.22**	**$ 14.61**	**$ 6.66**

[1] Totals may not add due to rounding

Twelve months ended December 31, 2016[1] (in thousands of USD except as noted)									
		La Colorada	Dolores	Alamo Dorado	Huaron	Morococha	San Vicente	Manantial Espejo	Consolidated Total
Cash Costs before by-product credits	**A**	**$ 68,057**	**$124,570**	**$ 39,891**	**$ 96,284**	**$ 75,586**	**$ 61,779**	**$ 97,388**	**$ 563,555**
Less gold credit	b1	(2,929)	(128,696)	(10,251)	(2)	(897)	(335)	(83,992)	**$ (227,103)**
Less zinc credit	b2	(20,636)	—	—	(34,638)	(26,841)	(8,611)	—	**(90,726)**
Less lead credit	b3	(10,487)	—	—	(18,967)	(5,166)	(795)	—	**(35,415)**
Less copper credit	b4	—	—	(100)	(24,113)	(33,701)	(2,534)	—	**(60,448)**
Sub-total by-product credits	**B=(b1+ b2+ b3+ b4)**	**$ (34,052)**	**$(128,696)**	**$ (10,351)**	**$ (77,720)**	**$ (66,605)**	**$ (12,275)**	**$ (83,992)**	**$ (413,692)**
Cash Costs net of by-product credits	C=(A+B)	$ 34,004	$ (4,126)	$ 29,539	$ 18,565	$ 8,981	$ 49,504	$ 13,396	**$ 149,862**
Payable ounces of silver (thousand)	D	5,531	3,831	1,844	3,208	2,132	4,143	3,130	**23,818**
Cash cost per ounce net of by-products	**C/D**	**$ 6.15**	**$ (1.08)**	**$ 16.02**	**$ 5.79**	**$ 4.21**	**$11.95**	**$ 4.28**	**$ 6.29**

(1) Totals may not add due to rounding

Three months ended December 31, 2015 [1] (in thousands of USD except as noted)									
		La Colorada	Dolores	Alamo Dorado	Huaron	Morococha	San Vicente	Manantial Espejo	Consolidated Total
Cash Costs before by-product credits	**A**	**$ 15,861**	**$ 31,089**	**$ 13,353**	**$ 23,380**	**$ 21,143**	**$ 14,376**	**$ 29,203**	**$ 148,405**
Less gold credit	b1	(595)	(20,095)	(8,726)	(24)	(330)	(63)	(22,699)	**(52,531)**
Less zinc credit	b2	(3,420)			(5,299)	(3,664)	(3,006)		**(15,390)**
Less lead credit	b3	(1,956)			(3,107)	(1,040)	(274)		**(6,376)**
Less copper credit	b4	—		(181)	(5,750)	(10,241)	—		**(16,172)**
Sub-total by-product credits	**B=(b1+ b2+ b3+ b4)**	**$ (5,971)**	**$ (20,095)**	**$ (8,907)**	**$ (14,179)**	**$ (15,275)**	**$ (3,343)**	**$ (22,699)**	**$ (90,469)**
Cash Costs net of by-product credits	C=(A+B)	$ 9,890	$ 10,995	$ 4,446	$ 9,200	$ 5,868	$ 11,033	$ 6,505	**$ 57,936**
Payable ounces of silver (thousand)	D	1,359	945	810	810	452	992	1,003	**6,371**
Cash cost per ounce net of by-products	**C/D**	**$ 7.28**	**$ 11.64**	**$ 5.49**	**$ 11.35**	**$ 12.99**	**$ 11.12**	**$ 6.48**	**$ 9.09**

(1) Totals may not add due to rounding.

Twelve months ended December 31, 2015[1] (in thousands of USD except as noted)									
		La Colorada	Dolores	Alamo Dorado	Huaron	Morococha	San Vicente	Manantial Espejo	Consolidated Total
Cash Costs before by-product credits	**A**	**$ 61,748**	**$130,918**	**$ 57,178**	**$ 93,503**	**$ 88,542**	**$ 56,262**	**$ 115,548**	**$ 603,698**
Less gold credit	b1	(2,586)	(91,551)	(23,187)	(174)	(1,594)	(241)	(89,320)	**$ (208,654)**
Less zinc credit	b2	(14,429)	—	—	(21,416)	(17,973)	(10,932)	—	**(64,750)**
Less lead credit	b3	(7,049)	—	—	(11,586)	(4,261)	(1,173)	—	**(24,069)**
Less copper credit	b4	—	—	(439)	(27,189)	(40,606)	—	—	**(68,233)**
Sub-total by-product credits	**B=(b1+ b2+ b3+ b4)**	**$ (24,064)**	**$ (91,551)**	**$ (23,626)**	**$ (60,365)**	**$ (64,434)**	**$ (12,346)**	**$ (89,320)**	**$ (365,706)**
Cash Costs net of by-product credits	C=(A+B)	$ 37,683	$ 39,367	$ 33,553	$ 33,137	$ 24,107	$ 43,916	$ 26,228	**$ 237,992**
Payable ounces of silver (thousand)	D	5,089	4,242	2,941	3,037	1,851	3,796	3,576	**24,531**
Cash cost per ounce net of by-products	**C/D**	**$ 7.41**	**$ 9.28**	**$ 11.41**	**$ 10.91**	**$ 13.03**	**$11.57**	**$ 7.33**	**$ 9.70**

(1) Totals may not add due to rounding.

• *Adjusted Earnings and Basic Adjusted Earnings Per Share*

Adjusted earnings and basic adjusted earnings per share are non-GAAP measures that the Company considers to better reflect normalized earnings as it eliminates items that may be volatile from period to period, relate to positions that will settle in future periods. Certain items that become applicable in a period may be adjusted for, with the Company retroactively presenting comparable periods with an adjustment for such items and conversely, items no longer applicable may be removed from the calculation. The Company adjusts certain items in the periods that they occurred but does not reverse or otherwise unwind the effect of such items in future periods. Neither adjusted earnings nor basic adjusted earnings per share have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other companies.

The following table shows a reconciliation of adjusted loss and earnings for the three and twelve months ended December, 2016 and 2015, to the net (loss) earnings for each period.

	Three months ended December 31,		Year ended December 31,	
(In thousands of USD, except as noted)	**2016**	2015	**2016**	2015
Net earnings (loss) for the period	**$ 22,284**	$ (136,958)	**$ 101,825**	$ (231,556)
Adjust derivative gain	**—**	(4)	**—**	(278)
Adjust impairment of mineral properties	**—**	121,512	**—**	150,268
Adjust write-down of other assets	**—**	2,678	**—**	22,812
Adjust unrealized foreign exchange losses (gains)	**4,139**	(1,319)	**5,759**	860
Adjust net realizable value of heap inventory	**(6,619)**	6,366	**(14,110)**	6,401
Adjust unrealized (gain) loss on commodity contracts	**(435)**	2,989	**(21)**	2,835
Adjust share of loss from associate and dilution gain	**(8,484)**	—	**(7,946)**	—
Adjust gain on sale of assets	**(157)**	(38)	**(25,100)**	(372)
Adjust for effect of taxes relating to the above[1]	**$ 2,180**	$ (10,131)	**$ 11,870**	$ (5,172)
Adjust for effect of foreign exchange on taxes[1]	**$ 6,057**	$ 2,220	**$ 14,323**	$ 12,941
Adjusted earnings (loss) for the period	**$ 18,965**	$ (12,685)	**$ 86,600**	$ (41,261)
Weighted average shares for the period	**152,263**	151,715	**152,118**	151,664
Adjusted earnings (loss) loss per share for the period	**$ 0.12**	$ (0.08)	**$ 0.57**	$ (0.27)

[1] The impact of unrealized foreign exchange rate changes on deferred income tax balances has been added as a new adjusting item, along with a modification in the quantification of the estimated effect of taxes. For comparative purposes, 2015 adjusted earnings have been recalculated and are thus different from those originally reported. The effect of these new adjusting items on 2015 annual and fourth quarter adjusted earnings was an increase of $0.11 per share and $0.04 per share, respectively, from those originally reported.

• *Total Debt*

Total debt is a non-GAAP measure calculated as the total current and non-current portions of: long-term debt; finance lease liabilities; and loans payable. Total debt 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 the financial debt leverage of the Company.

• *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.

• *General and Administrative Costs per Silver Ounce Produced*

General and administrative costs per silver ounce produced ("G&A per ounce") is a non-GAAP measure that is calculated by dividing G&A expense recorded in a period by the number of silver ounces produced in the same period. G&A per ounce 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 corporate expenses incurred in a period relative to the amount of consolidated silver produced during the same period.

RISKS AND UNCERTAINTIES

The Company is exposed to many risks in conducting its business, including but not limited to: metal price risk as the Company derives its revenue from the sale of silver, zinc, lead, copper, and gold; credit risk in the normal course of dealing with other companies; foreign exchange risk as the Company reports its financial statements in USD whereas the Company operates in jurisdictions that utilize other currencies; the inherent risk of uncertainties in estimating mineral reserves and mineral resources; political risks; and environmental risks and risks related to its relations with employees. These and other risks are described below and in Pan American's Annual Information Form (available on SEDAR at www.sedar.com), Form 40-F filed with the SEC, and the 2016 Financial Statements. Readers are encouraged to refer to these documents for a more detailed description of some of the risks and uncertainties inherent to Pan American's business.

• *Foreign Jurisdiction Risk*

Pan American currently conducts operations in Peru, Mexico, Argentina and Bolivia. All of these jurisdictions are potentially subject to a number of political and economic risks, including those described in the following section. The Company is unable to determine the impact of these risks on its future financial position or results of operations and the Company's exploration, development and production activities may be substantially affected by factors outside of Pan American's control. These potential factors include, but are not limited to: royalty and tax increases or claims by governmental bodies, expropriation or nationalization, lack of an independent judiciary, foreign exchange controls, import and export regulations, cancellation or renegotiation of contracts and environmental and permitting regulations. The Company currently has no political risk insurance coverage against these risks.

All of Pan American's current production and revenue is derived from its operations in Peru, Mexico, Argentina and Bolivia. As Pan American's business is carried on in a number of developing countries, it is exposed to a number of risks and uncertainties, including the following: expropriation or nationalization without adequate compensation, particularly in jurisdictions such as Argentina and Bolivia who 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 renegotiation 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 generally, including judgments obtained in Canadian or United States courts against assets and entities 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, property damage and frivolous or vexatious claims; violence and more prevalent or stronger organized crime groups; terrorism and hostage taking; military repression and increased likelihood of international conflicts or aggression; increased public health concerns; and potential practical restrictions on the ability of Pan American's subsidiaries to transfer funds to Pan American. Certain of these risks and uncertainties are illustrated well by circumstances in Bolivia and Argentina.

The Company's Mexican operations, Alamo Dorado and La Colorada, have suffered from armed robberies of doré in the past. The Company has instituted a number of additional security measures and a more frequent shipping schedule in response to these incidents. The Company has subsequently renewed its 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.

Local opposition to mine development projects has arisen periodically in some of the jurisdictions in which we operate, and such opposition has at times been violent. There can be no assurance that similar local opposition will not arise in the future with respect to Pan American's foreign operations. If Pan American were to experience resistance or unrest in connection with its foreign operations, it could have a material adverse effect on Pan American's operations or profitability.

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 Mining Law No. 535 (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 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.

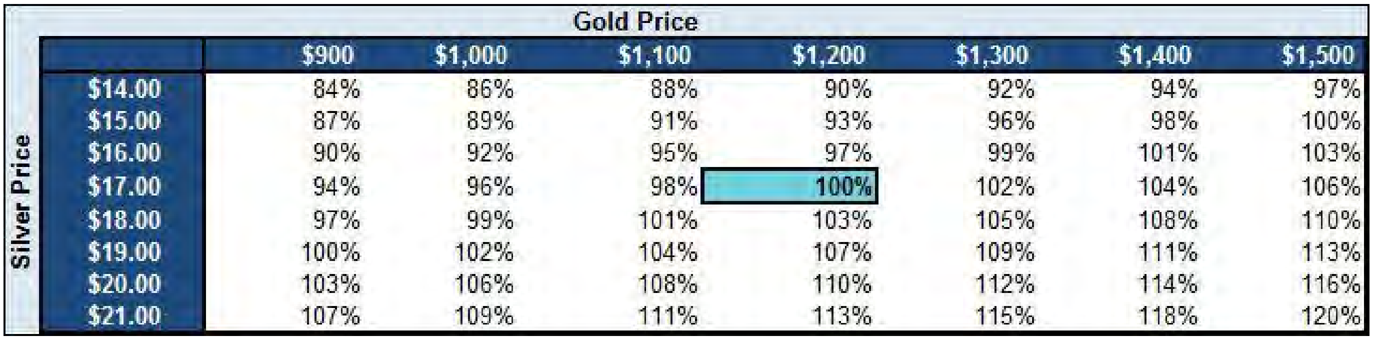
Under the previous political regime in Argentina, the government intensified the use of price, foreign exchange, and import controls in response to unfavourable domestic economic trends. Among other the things, the Argentine government has imposed restrictions on the importation of goods and services and increased administrative procedures required to import equipment, materials and services 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 advance 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 Argentine pesos into USD or other hard currencies, exposing us to additional risks of Peso 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, some of the policies of the previous government continue to adversely affect the Company's Argentine operations. It is unknown whether these more recent changes will be lasting, what, if any, additional steps will be taken by the current 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. Management and the Board of Directors continuously assess risks that the Company is exposed to, and attempt to mitigate these risks where practical through a range of risk management strategies, including employing qualified and experienced personnel.

• *Metal Price Risk*

Pan American derives its revenue from the sale of silver, zinc, lead, copper, and gold. The Company's sales are directly dependent on metal prices, and metal prices have historically shown significant volatility and are beyond the Company's control. The table below illustrates the effect of changes in silver and gold prices on anticipated revenues for 2017, expressed in percentage terms. This analysis assumes that quantities of silver and gold produced and sold remain constant under all price scenarios presented.

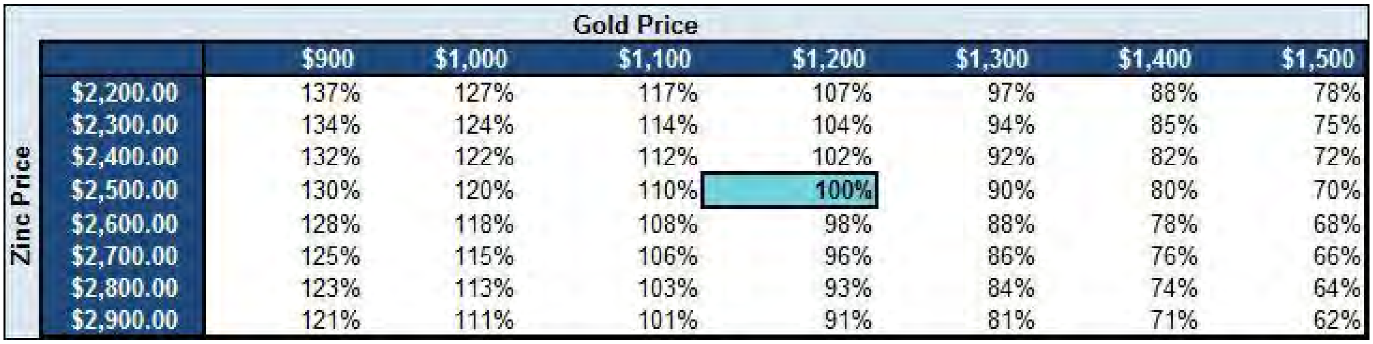
2017 Revenue Metal Price Sensitivity



		Gold Price						
		$900	$1,000	$1,100	$1,200	$1,300	$1,400	$1,500
Silver Price	$14.00	84%	86%	88%	90%	92%	94%	97%
	$15.00	87%	89%	91%	93%	96%	98%	100%
	$16.00	90%	92%	95%	97%	99%	101%	103%
	$17.00	94%	96%	98%	100%	102%	104%	106%
	$18.00	97%	99%	101%	103%	105%	108%	110%
	$19.00	100%	102%	104%	107%	109%	111%	113%
	$20.00	103%	106%	108%	110%	112%	114%	116%
	$21.00	107%	109%	111%	113%	115%	118%	120%

The Company takes the view that its precious metals production should not be hedged, thereby, allowing the Company to maintain maximum exposure to precious metal prices. From time to time, Pan American mitigates the price risk associated with its base metal production by committing some of its forecasted base metal production under forward sales and option contracts, as described under the "Financial Instruments" section of this MD&A. Decisions relating to hedging may have material adverse effects upon our financial performance, financial position, and results of operations. Since base metal and gold revenue are treated as a by-product credit for purposes of calculating cash costs per ounce of silver and AISCSOS, these non-GAAP measures are highly sensitive to base metal and gold prices. The table below illustrates this point by plotting the expected cash cost per ounce according to our 2017 forecast against various price assumptions for the Company's two main by-product credits, zinc and gold expressed in percentage terms:

2017 Cash Cost Metal Price Sensitivity



		Gold Price						
		$900	$1,000	$1,100	$1,200	$1,300	$1,400	$1,500
Zinc Price	$2,200.00	137%	127%	117%	107%	97%	88%	78%
	$2,300.00	134%	124%	114%	104%	94%	85%	75%
	$2,400.00	132%	122%	112%	102%	92%	82%	72%
	$2,500.00	130%	120%	110%	100%	90%	80%	70%
	$2,600.00	128%	118%	108%	98%	88%	78%	68%
	$2,700.00	125%	115%	106%	96%	86%	76%	66%
	$2,800.00	123%	113%	103%	93%	84%	74%	64%
	$2,900.00	121%	111%	101%	91%	81%	71%	62%

The Board of Directors continually assesses the Company's strategy towards its base metal exposure, depending on market conditions. If metal prices decline significantly below levels used in the Company's most recent impairment tests, for an extended period of time, the Company may need to reassess its price assumptions, and a significant decrease in the price assumptions could be an indicator of potential impairment. A description of the impact of metal price changes on certain Company assets is included in the Key Assumption and Sensitivity sections included in both the 2016 Financial Statements (included in Note 11), and in this MD&A (included in the Income Statement analysis section).

- ***Trading and Credit Risk***

The zinc, lead, and copper concentrates produced by Pan American are sold through long-term supply arrangements to metal traders or integrated mining and smelting companies. 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. 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, 2016, we had receivable balances associated with buyers of our concentrates of $45.0 million (2015 - $21.3 million). All of this receivable balance is owed by twelve 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, 2016, we had approximately $28.5 million contained in precious metal inventory at refineries (2015 - $21.4 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.

Supplier advances for products and services yet to be provided are a common practice in some jurisdictions in which the Company operates. These advances represent a credit risk to the Company to the extent that supplies do not deliver products or perform services as expected. As at December 31, 2016, the Company had made $28.8 million of supplier advances (December 31, 2015 - $12.5 million), which are reflected in “Trade and other receivables” on the Company’s balance sheet.

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 MD&A, 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.

- ***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.

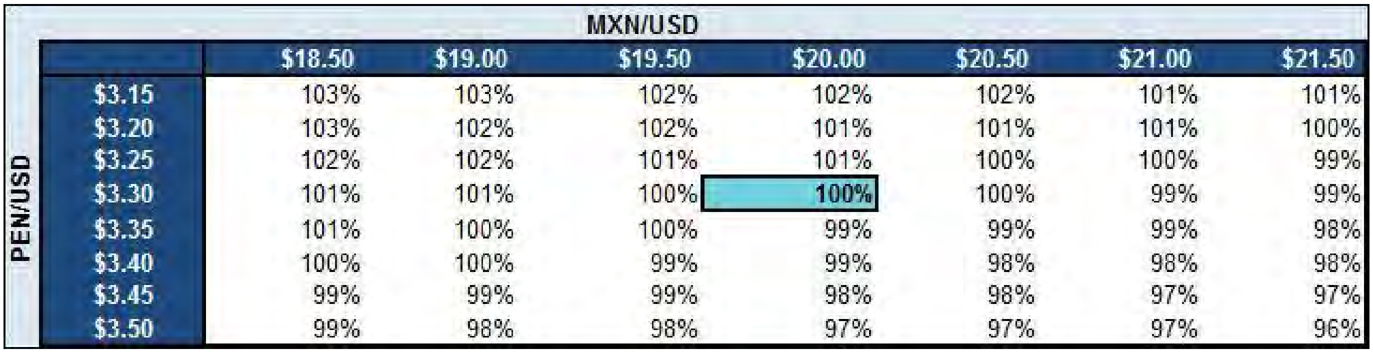
We must maintain sufficient liquidity to meet our short-term business requirements, taking into account our anticipated cash flows from operations, our holdings of cash and cash equivalents, and committed loan facilities.

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.

- ***Exchange Rate Risk***

Pan American reports its financial statements in USD; however, the Company operates in jurisdictions that utilize other currencies. As a consequence, the financial results of the Company's operations, as reported in USD, are subject to changes in the value of the USD relative to local currencies. Since the Company's revenues are denominated in USD and a portion of the Company's operating costs and capital spending are in local currencies, the Company is negatively impacted by strengthening local currencies relative to the USD and positively impacted by the inverse. The local currencies that the Company has the most exposure to are the PEN, MXN and ARS. In order to mitigate this exposure, the Company maintains a portion of its cash balances in PEN, MXN, ARS and CAD and, from time to time, enters into forward currency positions to match anticipated spending as discussed in this in MD&A in the "Financial Instruments" section. The following table illustrates the effect of changes in the exchange rate of PEN and MXN against the USD on anticipated cost of sales for 2017, expressed in percentage terms:

2017 Cost of Sales Exchange Rate Sensitivity



		MXN/USD						
		$18.50	$19.00	$19.50	$20.00	$20.50	$21.00	$21.50
PEN/USD	$3.15	103%	103%	102%	102%	102%	101%	101%
	$3.20	103%	102%	102%	101%	101%	101%	100%
	$3.25	102%	102%	101%	101%	100%	100%	99%
	$3.30	101%	101%	100%	100%	100%	99%	99%
	$3.35	101%	100%	100%	99%	99%	99%	98%
	$3.40	100%	100%	99%	99%	98%	98%	98%
	$3.45	99%	99%	99%	98%	98%	97%	97%
	$3.50	99%	98%	98%	97%	97%	97%	96%

In order to mitigate this exposure, the Company maintains a portion of its cash balances in PEN, MXN and CAD and, from time to time, enters into forward currency positions to match anticipated spending as discussed in the "Financial Instruments" section of this MD&A.

The Company's balance sheet contains various monetary assets and liabilities, some of which are denominated in foreign currencies. Accounting convention dictates that these balances are translated at the end of each period, with resulting adjustments being reflected as foreign exchange gains or losses on the Company's income statement.

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. Maintaining monetary assets in ARS also exposes us to the risks of ARS devaluation and high domestic inflation.

- ***Taxation Risks***

Pan American is exposed to 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.

- ***Claims and Legal Proceedings***

Pan American is 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 sizable monetary damages against us and/or the return of surface or mineral rights that are valuable to us and which may significantly 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 establish provisions for matters that are probable and can be reasonably estimated. We also carry liability insurance coverage, however such insurance does not cover all risks to which we might be exposed and in other cases, may only partially cover losses incurred by the Company. 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.

SIGNIFICANT JUDGMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY IN THE APPLICATION OF ACCOUNTING POLICIES

In preparing financial statements in accordance with IFRS, management is required to make estimates and assumptions that affect the amounts reported in the consolidated financial statements. These critical accounting estimates represent management estimates and judgments that are uncertain and any changes in these could materially impact the Company's financial statements. Management continuously reviews its estimates, judgments, and assumptions using the most current information available.

Readers should also refer to Note 2 of the 2016 Financial Statements, for the Company's summary of significant accounting policies.

Significant Judgments in the Application of Accounting Policies

Judgments that have the most significant effect on the amounts recognized in the Company's consolidated financial statements are as follows:

Capitalization of evaluation costs: The Company has determined that evaluation costs capitalized during the year relating to the operating mines and certain other exploration interests have potential future economic benefits and are potentially economically recoverable, subject to impairment analysis. In making this judgement, the Company has assessed various sources of information including but not limited to the geologic and metallurgic information, history of conversion of mineral deposits to proven and probable mineral reserves, scoping and feasibility studies, proximity to existing ore bodies, operating management expertise and required environmental, operating and other permits.

Commencement of commercial production: During the determination of whether a mine has reached an operating level that is consistent with the use intended by management, costs incurred are capitalized as mineral property, plant and equipment and any consideration from commissioning sales are offset against costs capitalized. The Company defines commencement of commercial production as the date that a mine has achieved a sustainable level of production based on a percentage of design capacity along with various qualitative factors including but not limited to the achievement of mechanical completion, continuous nominated level of production, the working effectiveness of the plant and equipment at or near expected levels and whether there is a sustainable level of production input available including power, water and diesel.

Assets' carrying values and impairment charges: In determining carrying values and impairment charges, the Company looks at recoverable amounts, defined as the higher of value in use or fair value less cost to sell in the case of assets, and at objective evidence that identifies significant or prolonged decline of fair value on financial assets indicating impairment. These determinations and their individual assumptions require that management make a decision based on the best available information at each reporting period.

Functional currency: The functional currency for the Company and its subsidiaries is the currency of the primary economic environment in which each operates. The Company has determined that its functional currency and that of its subsidiaries is the USD. The determination of functional currency may require certain judgments to determine the primary economic environment. The Company reconsiders the functional currency used when there is a change in events and conditions which determined the primary economic environment.

Business combinations: Determination of whether a set of assets acquired and liabilities assumed constitute a business may require the Company to make certain judgments, taking into account all facts and circumstances. A business consists of inputs, including non-current assets and processes, including operational processes, that when applied to those inputs have the ability to create outputs that provide a return to the Company and its shareholders.

Deferral of stripping costs: In determining whether stripping costs incurred during the production phase of a mining property relate to mineral reserves and mineral resources that will be mined in a future period and therefore should be capitalized, the Company treats the costs of removal of the waste material during a mine's production phase as deferred, where it gives rise to future benefits. These capitalized costs are subsequently amortized on a unit of production basis over the reserves that directly benefit from the specific stripping activity. As at December 31, 2016, the carrying amount of stripping costs capitalized was $40.3 million at Dolores (2015 - $39.5 million was capitalized comprised of Manantial Espejo $3.2 million and Dolores $36.3 million).

Determination of control of subsidiaries and joint arrangements: Determination of whether the Company has control of subsidiaries or joint control of joint arrangements requires an assessment of the activities of the investee that significantly affect the investee's returns, including strategic, operational and financing decision-making, appointment, remuneration and termination of the key management personnel and when decisions related to those activities are under the control of the Company or require unanimous consent from the investors. Based on assessment of the relevant facts and circumstances, primarily, the Company's limited board representation and restricted influence over operating, strategic and financing decisions, the Company concluded that it does not control Maverix and as a result classified it as an investment in associate subject to significant influence.

Key Sources of Estimation Uncertainty in the Application of Accounting Policies

Key sources of estimation uncertainty that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities are:

Revenue recognition: Revenue from the sale of concentrate to independent smelters is recorded at the time the risks and rewards of ownership pass to the buyer using forward market prices on the expected date that final sales prices will be fixed. Variations between the prices set under the smelting contracts may be caused by changes in market prices and result in an embedded derivative in the accounts receivable. The embedded derivative is recorded at fair value each period until final settlement occurs, with changes in the fair value classified in revenue. In a period of high price volatility, as experienced under current economic conditions, the effect of mark-to-market price adjustments related to the quantity of metal which remains to be settled with independent smelters could be significant. For changes in metal quantities upon receipt of new information and assay, the provisional sales quantities are adjusted.

Estimated recoverable ounces*:* The carrying amounts of the Company's mining properties are depleted based on recoverable ounces. Changes to estimates of recoverable ounces and depletable costs including changes resulting from revisions to the Company's mine plans and changes in metal price forecasts can result in a change to future depletion rates.

Mineral reserve estimates: The figures for mineral reserves and mineral resources are disclosed in accordance with NI 43-101 issued by the Canadian Securities Administrators, and in accordance with "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines – adopted November 23, 2003" prepared by the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Standing Committee on Reserve Definitions. There are numerous uncertainties inherent in estimating mineral reserves and mineral resources, including many factors beyond the Company's control. Such estimation is a subjective process, and the accuracy of any mineral reserve or mineral resource estimate is a function of the quantity and quality of available data and of the assumptions made and judgments used in engineering and geological interpretation. Differences between management's assumptions including economic assumptions such as metal prices and market conditions could have a material effect in the future on the Company's financial position and results of operation.

Valuation of Inventory: In determining mine production costs recognized in the consolidated income statement, the Company makes estimates of quantities of ore stacked in stockpiles, placed on the heap leach pad and in process and the recoverable silver in this material to determine the average costs of finished goods sold during the year. Changes in these estimates can result in a change in mine operating costs of future periods and carrying amounts of inventories.

Depreciation and amortization rates for mineral property, plant and equipment and mineral interests: Depreciation and amortization expenses are allocated based on assumed asset lives and depreciation and amortization rates. Should the asset life or depreciation rate differ from the initial estimate, an adjustment would be made in the consolidated income statement prospectively. A change in the mineral reserve estimate for assets depreciated using the units of production method would impact depreciation expense prospectively.

Impairment and impairment reversal of mining interests: While assessing whether any indications of impairment, or reversal of previous impairments, exist for mining interests, consideration is given to both external and internal sources of information. Information the Company considers include changes in the market, economic and legal environment in which the Company operates that are not within its control and affect the recoverable amount of mining interests. Internal sources of information include the manner in which mineral property, plant and equipment are being used or are expected to be used and indications of the economic performance of the assets. Estimates include but are not limited to estimates of the discounted future after-tax cash flows expected to be derived from the Company's mining properties, costs to sell the mining properties and the appropriate discount rate. Material and prolonged changes in metal price forecasts, material changes in estimated future costs of production or estimated future capital costs, material changes in the amount of recoverable mineral reserves and mineral resources and/or material changes in the current economics can result in a write-down, or reversal of previous impairment charges, taken on the carrying amounts of the Company's mining interests. Impairments and impairment reversals of mining interests are discussed in Note 11 of the 2016 Financial Statements.

Estimation of decommissioning and restoration costs and the timing of expenditures: The cost estimates are updated annually during the life of a mine to reflect known developments, (e.g. revisions to cost estimates and to the estimated lives of operations), and are subject to review at regular intervals. Decommissioning, restoration and similar liabilities are estimated based on the Company's interpretation of current regulatory requirements, constructive obligations and are measured at the best estimate of expenditure required to settle the present obligation of decommissioning, restoration or similar liabilities that may occur upon decommissioning of the mine at the end of the reporting period. The carrying amount is determined based on the net present value of estimated future cash expenditures for the settlement of decommissioning, restoration or similar liabilities that may occur upon decommissioning of the mine. Such estimates are subject to change based on changes in laws and regulations and negotiations with regulatory authorities. Refer to Note 16 of the 2016 Financial Statements for details on decommissioning and restoration costs.

Income taxes and recoverability of deferred tax assets: 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, the Company gives 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. The Company considers 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. The Company reassesses unrecognized income tax assets at each reporting period.

Accounting for acquisitions: The provisional fair value of assets acquired and liabilities assumed and the resulting goodwill, if any, requires that management make certain judgments and estimates taking into account information available at the time of acquisition about future events, including, but not restricted to, estimates of mineral reserves and mineral resources required, exploration potential, future operating costs and capital expenditures, future metal prices, long-term foreign exchange rates and discount rates. Changes to the provisional values of assets acquired and liabilities assumed, deferred income taxes and resulting goodwill, if any, are retrospectively adjusted when the final measurements are determined (within one year of the acquisition date).

Contingencies: Due to the size, complexity and nature of the Company's operations, various legal and tax matters are outstanding from time to time. In the event the Company's estimates of the future resolution of these matters changes, the Company will recognize the effects of the changes in its consolidated financial statements on the date such changes occur. Refer to Note 29 of the 2016 Financial Statements for further discussion on contingencies.

Changes in Accounting Standards

Application of new and revised accounting standards

The Company has applied the amendments to IFRSs included in the Annual Improvements to IFRSs 2012-2014 Cycle which were effective for annual periods beginning on or after January 1, 2016. The amendments did not have an impact on the Company's consolidated financial statements.

Changes in accounting standards not yet effective

The Company has not early adopted any amendment, standard or interpretation that has been issued by the IASB but is not yet effective.

IFRS 9 *Financial Instruments* ("IFRS 9") was issued by the IASB on July 24, 2014 and will replace IAS 39 Financial Instruments: Recognition and Measurement. IFRS 9 utilizes a single approach to determine whether a financial asset is measured at amortized cost or fair value and a new mixed measurement model for debt instruments having only two categories: amortized cost and fair value. The approach in IFRS 9 is based on how an entity manages its financial instruments in the context of its business model and the contractual cash flow characteristics of the financial assets. Final amendments released on July 24, 2014 also introduce a new expected loss impairment model and limited changes to the classification and measurement requirements for financial assets. IFRS 9 is effective for annual periods beginning on or after January 1, 2018. The Company is currently evaluating the impact the final standard and amendments on its consolidated financial statements.

IFRS 15, *Revenue from Contracts with Customers* ("IFRS 15") In May 2014, the IASB and the Financial Accounting Standards Board ("FASB") completed its joint project to clarify the principles for recognizing revenue and to develop a common revenue standard for IFRS and US GAAP. As a result of the joint project, the IASB issued IFRS 15, Revenue from Contracts with Customers, and will replace IAS 18, Revenue, IAS 11, Construction Contracts, and related interpretations on revenue. IFRS 15 establishes principles to address the nature, amount, timing and uncertainty of revenue and cash flows arising from an entity's contracts with customers. The standard is effective for annual periods beginning on or after January 1, 2018. The Company plans to apply IFRS 15 at the date it becomes effective. The Company is in the process of analyzing IFRS 15 and determining the effect on its consolidated financial statements as a result of adopting this standard.

IFRS 16, *Leases* ("IFRS 16") In January 2016, the IASB issued IFRS 16 - *Leases* which replaces IAS 17 - *Leases* and its associated interpretative guidance. IFRS 16 applies a control model to the identification of leases, distinguishing between a lease and a service contract on the basis of whether the customer controls the asset being leased. For those assets determined to meet the definition of a lease, IFRS 16 introduces significant changes to the accounting by lessees, introducing a single, on-balance sheet accounting model that is similar to current finance lease accounting, with limited exceptions for short-term leases or leases of low value assets. Lessor accounting remains similar to current accounting practice. The standard is effective for annual periods beginning on or after January 1, 2019, with early application permitted for entities that apply IFRS 15. The Company is currently evaluating the impact the final standard is expected to have on its consolidated financial statements.

IFRIC Interpretation 22 Foreign Currency Transactions and Advance Consideration ("IFRIC 22") On December 8, 2016, the IASB issued IFRIC 22, which addresses the exchange rate to use in transactions that involve advance consideration paid or received in a foreign currency. The Standard provides guidance on how to determine the date of the transaction for the purpose of determining the spot exchange rate used to translate the asset, expense or income on initial recognition that relates to, and is recognized on the de-recognition of, a non-monetary prepayment asset or a non-monetary deferred income liability. It is effective January 1, 2018. The Company is currently assessing the impact on the adoption of this interpretation.

CORPORATE GOVERNANCE, SOCIAL RESPONSIBILITY, AND ENVIRONMENTAL STEWARDSHIP

Governance

Pan American adheres to high standards of corporate governance and closely follows the requirements established by both the Canadian Securities Administrators and the SEC in the United States. We believe that our current corporate governance systems meet or exceed these requirements.

Our Board of Directors oversees the direction and strategy of the business and the affairs of the Company. The Board is comprised of eight directors, seven of whom are independent. The Board's wealth of experience allows it to effectively oversee the development of corporate strategies, provide management with long-term direction, consider and approve major decisions, oversee the business generally and evaluate corporate performance. The Nominating and Governance Committee, appointed by the Board of Directors, oversees the effective functioning of the Board and the implementation of governance best practices.

We believe that good corporate governance is important to the effective performance of the Company and plays a significant role in protecting the interests of all stakeholders while helping to maximize value.

Corporate Social Responsibility

The Health, Safety, Environment, and Communities Committee, appointed by the Board of Directors, provides oversight for the corporate social initiatives of the Company and reports directly to the Board. We are committed to creating sustainable value in the communities where our people work and live. Guided by research conducted by our local offices, we participate in, and contribute to numerous community programs. They typically center on education and health, nutrition, environmental awareness, local infrastructure and alternative economic activities. Some of our key initiatives are:

- *Strengthening the production chain of livestock breeding.*
- *Value adding through the development of alpaca textiles weaving workshops with product commercialization in North America.*
- *Improving nutrition, focusing on children and women.*
- *Promoting community health with emphasis on immunizations, optometry, and focusing on oral health.*
- *Promoting tourism and local areas of interest such as the Stone Forest in Huayllay in Peru.*
- *Encouraging education for children and adults by contributing to teacher's salaries, and providing continuous support through different scholarships at a local and national level.*

Environmental Stewardship

We are committed to operating our mines and developing our new projects in an environmentally responsible manner. Guided by our Corporate Environmental Policy, we take every practical measure to minimize the environmental impacts of our operations in each phase of the mining cycle, from early exploration through development, construction and operation, up to and after the mine's closure.

We build and operate mines in varied environments across the Americas. From the Patagonian plateau to the Sierra Madre in Mexico, our mines are generally located in isolated places where information about environmental and cultural values is often limited. Our mines in Peru and Bolivia are situated in historic mining districts where previous operations have left significant environmental liabilities that have potential to impact on surrounding habitats and communities.

We manage these challenges using best practice methods in environmental impact assessment and teams of leading local and international professionals who clearly determine pre-existing environmental values at each location. These extensive baseline studies often take years of work and cover issues such as biodiversity and ecosystems, surface and groundwater resources, air quality, soils, landscape, archeology and paleontology, and the potential for acid rock drainage in the natural rocks of each new mineral deposit or historic waste facilities. The data collected often significantly advances scientific knowledge about the environments and regions where we work.

The baseline information is then used interactively in the design of each new mine or to develop management and closure plans for historic environmental liabilities, in open consultation with local communities and government authorities. We conduct detailed modeling and simulation of the environmental effects of each alternative design in order to determine the optimum solution, always aiming for a net benefit.

Once construction and operations begin, we conduct regular monitoring of all relevant environmental variables in order to measure real impacts against baseline data and report to the government and communities on our progress. Community participation in environmental monitoring is encouraged across all our mines. We implement management systems, work procedures and regular staff training to ensure optimum day-to-day management of issues like waste separation and disposal, water conservation, spill prevention, and incident investigation and analysis.

We conduct corporate environmental audits of our operations to ensure optimum environmental performance. Environmental staff from all mines participate in the audits which improves integration and consolidation of company-wide standards across our operations. In 2016, audits were conducted on the Huaron, Morococha, and San Vicente mines. In 2015, audits were conducted on the La Colorada, Dolores, Alamo Dorado, and Manantial Espejo mines. No material issues were identified in either the 2016 or 2015 environmental audits.

DISCLOSURE CONTROLS AND PROCEDURES

Pan American's management considers the meaning of internal control to be the processes established by management to provide reasonable assurance about the achievement of the Company's objectives regarding operations, reporting and compliance. Internal control is designed to address identified risks that threaten any of these objectives.

As of December 31, 2016, the Company carried out an evaluation, under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that, as of December 31, 2016, the Company's disclosure controls and procedures were effective.

Changes in Internal Controls over Financial Reporting

There has been no change in the Company's internal control over financial reporting during the year ended December 31, 2016 that has materially affected or is reasonably likely to materially affect, its internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

Management of Pan American is responsible for establishing and maintaining an adequate system of internal control, including internal controls over financial reporting. Internal control over financial reporting is a process designed by, or under the supervision of, the President and Chief Executive Officer and the Chief Financial Officer and effected by the Board of Directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with International Financial Reporting Standards. It includes those policies and procedures that:

a) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of Pan American,

b) are designed to provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and that receipts and expenditures of Pan American are being made only in accordance with authorizations of management and Pan American's directors, and

c) are designed to provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of Pan American's assets that could have a material effect on the annual financial statements or interim financial reports.

The Company's management, including its President and Chief Executive Officer and Chief Financial Officer, believe that due to its inherent limitations, internal control over financial reporting may not prevent or detect misstatements on a timely basis. Also, projections of any evaluation of the effectiveness of internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of Pan American's internal control over financial reporting as at December 31, 2016, based on the criteria set forth in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, management concludes that, as of December 31, 2016, Pan American's internal control over financial reporting is effective.

Management reviewed the results of management's assessment with the Audit Committee of the Company's Board of Directors. Deloitte LLP, an independent registered public accounting firm, was engaged, as approved by a vote of the Company's shareholders, to audit and provide independent opinions on the Company's consolidated financial statements and the effectiveness of the Company's internal control over financial reporting as of December 31, 2016. Deloitte LLP has provided such opinions.

MINERAL RESERVES AND RESOURCES

Pan American Silver Corporation Mineral Reserves as of December 31, 2016 [1,2]

Property	Location	Classification	Tonnes (Mt)	Ag (g/t)	Contained Ag (Moz)	Au (g/t)	Contained Au (koz)	Cu (%)	Contained Cu (kt)	Pb (%)	Contained Pb (kt)	Zn (%)	Contained Zn (kt)
Huaron	Peru	Proven	5.7	169	30.8	N/A	N/A	0.37	20.70	1.46	82.40	3.02	171.00
		Probable	3.8	167	20.6	N/A	N/A	0.38	14.60	1.62	62.00	3.10	118.90
Morococha (92.3%) [3]	Peru	Proven	2.6	173	14.6	N/A	N/A	0.58	15.30	1.18	31.10	3.78	99.60
		Probable	2.2	181	12.8	N/A	N/A	0.44	9.80	1.64	36.20	4.21	93.20
La Colorada	Mexico	Proven	3.7	432	51.3	0.33	39.1	N/A		1.72	63.40	3.08	113.80
		Probable	4.0	362	46.8	0.32	41.2	N/A		1.24	49.80	2.06	82.90
Dolores	Mexico	Proven	41.6	27	36.1	0.77	1,034.9	N/A		N/A		N/A	
		Probable	22.5	25	17.9	0.65	472.4	N/A		N/A		N/A	
La Bolsa	Mexico	Proven	9.5	10	3.1	0.67	203.0	N/A		N/A		N/A	
		Probable	6.2	7	1.4	0.57	113.1	N/A		N/A		N/A	
Manantial Espejo	Argentina	Proven	2.2	111	8.0	1.17	84.4	N/A		N/A		N/A	
		Probable	0.5	244	3.8	3.32	52.2	N/A		N/A		N/A	
San Vicente (95%) [3]	Bolivia	Proven	2.0	464	29.4	N/A	N/A	0.46	9.10	0.39	7.70	3.00	59.00
		Probable	0.5	531	9.2	N/A	N/A	0.56	3.00	0.45	2.40	2.52	13.50
Totals [4]		Proven +	107.0	83	285.8	0.70	2,040.3	0.43	72.40	1.36	334.9	3.06	752.0

(1) Prices used to estimate mineral reserves for 2016 were $18.50 per ounce of silver, $1,300 per ounce of gold, $2,200 per tonne of zinc, $2,000 per tonne of lead, and $5,000 per tonne of copper, except at Manantial Espejo where $17.00 per ounce of silver and $1,200 per ounce of gold were used for planned 2017 production, reverting to $18.50 per ounce of silver and $1,300 per ounce of gold thereafter. Metal prices used for La Bolsa were $14.00 per ounce of silver and $825 per ounce of gold.

(2) Mineral reserve estimates were prepared under the supervision of, or were reviewed by, Christopher Emerson, FAusIMM, Vice President Business Development and Geology and Martin G. Wafforn, P.Eng., Senior Vice President Technical Services and Process Optimization, each of whom are Qualified Persons as that term is defined in National Instrument 43-101 ("NI 43-101).

(3) This information represents the portion of mineral reserves attributable to Pan American based on its ownership interest in the operating entity as indicated.

(4) Totals may not add up due to rounding.

Pan American Silver Corporation Mineral Resources as of December 31, 2016 [1,2]

Property	Location	Classification	Tonnes (Mt)	Ag (g/t)	Contained Ag (Moz)	Au (g/t)	Contained Au (koz)	Cu (%)	Pb (%)	Zn (%)
Huaron	Peru	Measured	2.2	165	11.8	N/A	N/A	0.27	1.57	2.93
		Indicated	1.7	164	9.1	N/A	N/A	0.33	1.56	2.99
Morococha (92.3%) [3]	Peru	Measured	0.4	161	2.0	N/A	N/A	0.25	1.09	3.31
		Indicated	1.1	127	4.6	N/A	N/A	0.56	0.93	3.26
La Colorada	Mexico	Measured	0.5	206	3.1	0.31	4.7	N/A	0.45	0.85
		Indicated	2.0	200	12.7	0.18	11.5	N/A	0.39	0.63
Dolores	Mexico	Measured	1.9	13	0.8	0.22	13.8	N/A	N/A	N/A
		Indicated	3.2	24	2.5	0.43	44.0	N/A	N/A	N/A
La Bolsa	Mexico	Measured	1.4	11	0.3	0.90	31.4	N/A	N/A	N/A
		Indicated	4.5	9	1.1	0.50	59.8	N/A	N/A	N/A
Manantial Espejo	Argentina	Measured	0.1	125	0.5	1.65	6.7	N/A	N/A	N/A
		Indicated	0.4	207	2.6	2.04	25.4	N/A	N/A	N/A
San Vicente (95%) [3]	Bolivia	Measured	0.8	202	5.0	N/A	N/A	0.30	0.14	2.45
		Indicated	0.1	194	0.5	N/A	N/A	0.33	0.17	2.30
Navidad	Argentina	Measured	15.4	137	67.8	N/A	N/A	0.10	1.44	N/A
		Indicated	139.8	126	564.5	N/A	N/A	0.04	0.79	N/A
Pico Machay	Peru	Measured	4.7	N/A	N/A	0.91	137.5	N/A	N/A	N/A
		Indicated	5.9	N/A	N/A	0.67	127.1	N/A	N/A	N/A
Calcatreu	Argentina	Indicated	8.0	26	6.6	2.63	676.0	N/A	N/A	N/A
Totals [4]		Measured	194.0	118	695.5	1.11	1,137.9	0.06	0.86	2.32

(1) Prices used to estimate mineral resources for 2016 were $18.50 per ounce of silver, $1,300 per ounce of gold, $2,200 per tonne of zinc, $2,000 per tonne of lead, and $5,000 per tonne of copper, except at Dolores and Manantial Espejo, where $25.00 per ounce of silver and $1,400 per ounce of gold were used. Metal prices used for La Bolsa were $14.00 per ounce of silver and $825 per ounce of gold. Metal prices for Navidad were $12.52 per ounce of silver and $1,100 per tonne of lead. Metal prices used for Calcatreu were $12.50 per ounce of silver and $650 per ounce of gold.

(2) Mineral resource estimates were prepared under the supervision of, or were reviewed by, Christopher Emerson, FAusIMM, Vice President Business Development and Geology and Martin G. Wafforn, P.Eng., Senior Vice President Technical Services and Process Optimization, each of whom are Qualified Persons as that term is defined in NI 43-101.

(3) This information represents the portion of mineral resources attributable to Pan American based on its ownership interest in the operating entity as indicated.

(4) Totals may not add up due to rounding.

Pan American Silver Corporation Mineral Resources as of December 31, 2016 [1,2]

Property	Location	Classification	Tonnes (Mt)	Ag (g/t)	Contained Ag (Moz)	Au (g/t)	Contained Au (koz)	Cu (%)	Pb (%)	Zn (%)
Huaron	Peru	Inferred	6.2	164	32.7	N/A	N/A	0.34	1.56	2.81
Morococha (92.3%) [3]	Peru	Inferred	3.9	214	26.6	N/A	N/A	0.29	1.30	3.58
La Colorada	Mexico	Inferred	1.8	313	17.8	0.35	19.7	N/A	2.65	4.58
Dolores	Mexico	Inferred	1.7	37	2.0	1.01	54.6	N/A	N/A	N/A
La Bolsa	Mexico	Inferred	13.7	8	3.3	0.51	222.4	N/A	N/A	N/A
Manantial Espejo	Argentina	Inferred	0.5	211	3.5	2.60	42.6	N/A	N/A	N/A
San Vicente (95%) [3]	Bolivia	Inferred	2.8	330	29.7	N/A	N/A	0.28	0.33	2.42
Navidad	Argentina	Inferred	45.9	81	119.4	N/A	N/A	0.02	0.57	N/A
Pico Machay	Peru	Inferred	23.9	N/A	N/A	0.58	445.7	N/A	N/A	N/A
Calcatreu	Argentina	Inferred	3.4	17	1.8	2.06	226.0	N/A	N/A	N/A
Totals [4]		Inferred	103.7	92	236.9	0.70	1,011.1	0.08	0.77	2.83

(1) Prices used to estimate mineral resources for 2016 were $18.50 per ounce of silver, $1,300 per ounce of gold, $2,200 per tonne of zinc, $2,000 per tonne of lead, and $5,000 per tonne of copper, except at Dolores and Manantial Espejo, where $25.00 per ounce of silver and $1,400 per ounce of gold were used. Metal prices used for La Bolsa were $14.00 per ounce of silver and $825 per ounce of gold. Metal prices for Navidad were $12.52 per ounce of silver and $1,100 per tonne of lead. Metal prices used for Calcatreu were $12.50 per ounce of silver and $650 per ounce of gold.

(2) Mineral resource estimates were prepared under the supervision of, or were reviewed by, Christopher Emerson, FAusIMM, Vice President Business Development and Geology and Martin G. Wafforn, P.Eng., Senior Vice President Technical Services and Process Optimization, each of whom are Qualified Persons as that term is defined in NI 43-101.

(3) This information represents the portion of mineral resources attributable to Pan American based on its ownership interest in the operating entity as indicated.

(4) Totals may not add up due to rounding.

General Notes Applicable to the Foregoing Tables:

Mineral reserves and resources are as defined by the Canadian Institute of Mining, Metallurgy and Petroleum.

Pan American reports mineral resources and mineral reserves separately. Reported mineral resources do not include amounts identified as mineral reserves. Mineral resources that are not mineral reserves have no demonstrated economic viability.

Pan American does not expect these mineral reserve and resource estimates to be materially affected by metallurgical, environmental, permitting, legal, taxation, socio-economic, political, and marketing or other relevant issues.

See the Company's Annual Information Form dated March 22, 2017, available at www.sedar.com for further information on the Company's material mineral properties, including information concerning associated QA/QC and data verification matters, the key assumptions, parameters and methods used by the Company to estimate mineral reserves and mineral resources, and for a detailed description of known legal, political, environmental, and other risks that could materially affect the Company's business and the potential development of the Company's mineral reserves and resources.

Grades are shown as contained metal before mill recoveries are applied.

TECHNICAL INFORMATION

Scientific and technical information contained in this MD&A has been reviewed and approved by Martin Wafforn, P.Eng., Senior Vice President Technical Services and Processing Optimization, and Christopher Emerson, FAusIMM, Vice President Business Development and Geology, each of whom are Qualified Persons, as the term is defined in NI 43-101.

For more detailed information regarding the Company’s material mineral properties and technical information related thereto, including a complete list of current technical reports applicable to such properties, please refer to the Company’s Annual Information Form dated March 22, 2017, filed at www.sedar.com or the Company’s most recent Form 40-F filed with the SEC.

Cautionary Note Regarding Forward-Looking Statements and Information

Certain of the statements and information in this MD&A constitute "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 and "forward-looking information" within the meaning of applicable Canadian provincial securities laws relating to the Company and its operations. All statements, other than statements of historical fact, are forward-looking statements. When used in this MD&A, the words, "will", "believes", "expects", "intents", "plans", "forecast", "objective", "guidance", "outlook", "potential", "anticipated", "budget", and other similar words and expressions, identify forward-looking statements or information. These forward-looking statements or information relate to, among other things: future economic and operational performance; future production of silver, gold and other metals produced by the Company; future cash costs per ounce of silver and all-in sustaining costs per silver ounce sold; the anticipated price of silver and other metals; the sufficiency of the Company's current working capital, anticipated operating cash flow or its ability to raise necessary funds; timing of production and the cash costs of production at each of the Company's properties; the estimated cost of and availability of funding necessary for sustaining capital; the successful implementation and effects of ongoing or future development and expansion plans, including the expansion projects at the Company's Dolores and La Colorada mines, and the anticipated financial and operational results of such projects; the effects of transactions on the future performance of the Company; forecast capital and non-operating spending; the timing and method of payment of compensation; anticipated volatility in effective tax rates and contributing factors; and the Company's plans and expectations for its properties and operations.

These statements and information reflect the Company's current views with respect to future events and are necessarily based upon a number of assumptions and estimates that, while considered reasonable by the Company, 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 statements or information contained in this MD&A and the Company has made assumptions and estimates 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); fluctuations in currency markets (such as the Peruvian sol, Mexican peso, Argentine peso, Bolivian boliviano and Canadian dollar versus the U.S. dollar); risks related to the technological and operational nature of the Company's business; changes in national and local government, legislation, taxation, controls or regulations and political, legal or economic developments in Canada, the United States, Mexico, Peru, Argentina, Bolivia or other countries where the Company may carry on business, including the risk of expropriation relative to certain of our operations, particularly in Argentina and Bolivia; 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); risks relating to the credit worthiness or financial condition of suppliers, refiners and other parties with whom the Company does business; inadequate insurance, or inability to obtain insurance, to cover these risks and hazards; employee relations; relationships with and claims by the local communities and indigenous populations; availability and increasing costs associated with mining inputs and labour; the speculative nature of mineral exploration and development, including the risk of obtaining necessary licenses and permits and the presence of laws and regulations that may impose restrictions on mining, including those currently in the province of Chubut, Argentina; diminishing quantities or grades of mineral reserves as properties are mined; global financial conditions; the Company's ability to complete and successfully integrate acquisitions and to mitigate other business combination risks; challenges to, or difficulty in maintaining, the Company's title to properties and continued ownership thereof; the actual results of current exploration activities, conclusions of economic evaluations, and changes in project parameters to deal with unanticipated economic or other factors; increased competition in the mining industry for properties, equipment, qualified personnel, and their costs; having sufficient cash to pay obligations as they come due; and those factors identified under the caption "Risks Related to Pan American's Business" in the Company's most recent Form 40-F and Annual Information Form filed with the United States Securities and Exchange Commission and Canadian provincial securities regulatory authorities. Investors are cautioned against attributing undue certainty or reliance on forward-looking statements or information. Although the Company has 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 anticipated, estimated, described, or intended. The Company does not intend, and does not assume any obligation, to update these forward-looking statements or information to reflect changes in assumptions or in circumstances or any other events affecting such statements or information, other than as required by applicable law.

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

This MD&A has been prepared in accordance with the requirements of Canadian securities laws, which differ from the requirements of U.S. securities laws. Unless otherwise indicated, all mineral reserve and resource estimates included in this MD&A have been prepared in accordance with Canadian National Instrument 43-101 - *Standards of Disclosure for Mineral Projects* (“NI 43-101”) and the Canadian Institute of Mining, Metallurgy, and Petroleum classification system. 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 standards, including NI 43-101, differ significantly from the requirements of the United Sates Securities and Exchange Commission (the “SEC”), and information concerning mineralization, deposits, mineral reserve and resource information contained or referred to herein may not be comparable to similar information disclosed by U.S. companies. In particular, and without limiting the generality of the foregoing, this MD&A uses the terms “measured resource”, “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 Silver Corp., in compliance with NI 43-101, may not qualify as “reserves” under SEC standards. 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 for extracted at the time the reserve determination is made. **U.S. investors are cautioned not to assume that any part of a “measured resource” or “indicated resource” will ever be converted in to a “reserve”. U.S. investors should also understand that “inferred resources” have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of the “inferred resources” exist, are economically or legally mineable or will ever be upgraded to a higher category.** Under Canadian Securities laws, estimated “inferred resources” may not form the basis of feasibility or pre-feasibility studies, except in rare cases. Disclosure of “contained ounces” in a mineral resource is 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. Accordingly, information concerning mineral deposits set forth may not be comparable with information made in public companies that report in accordance with U.S. standards.

PAN AMERICAN SILVER

CONSOLIDATED FINANCIAL STATEMENTS AND NOTES

FOR THE YEARS ENDED DECEMBER 31, 2016 AND DECEMBER 31, 2015

PAN AMERICAN
— SILVER —

Management’s Responsibility For Financial Reporting

The accompanying Consolidated Financial Statements of Pan American Silver Corp. were prepared by management, which is responsible for the integrity and fairness of the information presented, including the many amounts that must of necessity be based on estimates and judgments. These Consolidated Financial Statements were prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board (“IASB”). Financial information appearing throughout our management’s discussion and analysis is consistent with these Consolidated Financial Statements.

In discharging our responsibility for the integrity and fairness of the consolidated financial statements and for the accounting systems from which they are derived, we maintain the necessary system of internal controls designed to ensure that transactions are authorized, assets are safeguarded and proper records are maintained. These controls include quality standards in hiring employees, policies and procedure manuals, a corporate code of conduct and accountability for performance within appropriate and well-defined areas of responsibility.

The Board of Directors oversees management’s responsibilities for financial reporting through an Audit Committee, which is composed entirely of directors who are neither officers nor employees of Pan American Silver Corp. This Committee reviews our consolidated financial statements and recommends them to the Board for approval. Other key responsibilities of the Audit Committee include reviewing our existing internal control procedures and planned revisions to those procedures, and advising the directors on auditing matters and financial reporting issues.

Deloitte LLP, Independent Registered Public Accounting Firm appointed by the shareholders of Pan American Silver Corp. upon the recommendation of the Audit Committee and Board, have performed an independent audit of the Consolidated Financial Statements and their report follows. The auditors have full and unrestricted access to the Audit Committee to discuss their audit and related findings.

"signed"
Michael Steinmann
Chief Executive Officer

"signed"
A. Robert Doyle
Chief Financial Officer

March 22, 2017

Deloitte.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Pan American Silver Corp.

We have audited the accompanying consolidated financial statements of Pan American Silver Corp. and subsidiaries (the “Company”), which comprise the consolidated statements of financial position as at December 31, 2016 and December 31, 2015, and the consolidated income statements, consolidated statements of comprehensive income (loss), consolidated statements of cash flows and consolidated statements of changes in equity for the years then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of Pan American Silver Corp. and subsidiaries as at December 31, 2016 and December 31, 2015, and their financial performance and their cash flows for the years then ended in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Other Matter

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company’s internal control over financial reporting as of December 31, 2016, based on the criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 22, 2017 expressed an unqualified opinion on the Company’s internal control over financial reporting.

/s/ Deloitte LLP

Chartered Professional Accountants

Vancouver, Canada

March 22, 2017

Deloitte.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Pan American Silver Corp.

We have audited the internal control over financial reporting of Pan American Silver Corp. and subsidiaries (the "Company") as of December 31, 2016, based on the criteria established in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as at and for the year ended December 31, 2016 of the Company and our report dated March 22, 2017 expressed an unmodified/unqualified opinion on those financial statements.

/s/ Deloitte LLP

Chartered Professional Accountants

Vancouver, Canada

March 22, 2017

Pan American Silver Corp.

Consolidated Statements of Financial Position

As at December 31, 2016 and 2015
(in thousands of U.S. dollars)

		December 31, 2016		December 31, 2015
Assets				
Current assets				
Cash and cash equivalents (Note 25)	**$**	**180,881**	$	133,963
Short-term investments (Note 8)		**36,729**		92,678
Trade and other receivables (Note 7)		**130,117**		87,041
Income taxes receivable		**17,460**		27,373
Inventories (Note 9)		**237,329**		204,361
Prepaid expenses and other current assets		**10,337**		6,748
		612,853		552,164
Non-current assets				
Mineral properties, plant and equipment (Note 10)		**1,222,727**		1,145,221
Long-term refundable tax		**7,664**		8,994
Deferred tax assets (Note 28)		**1,727**		3,730
Investment in associates (Note 12)		**49,734**		1,450
Other assets (Note 13)		**379**		421
Goodwill (Note 11)		**3,057**		3,057
Total Assets	**$**	**1,898,141**	$	1,715,037
Liabilities				
Current liabilities				
Accounts payable and accrued liabilities (Note 14)	**$**	**143,502**	$	112,829
Loans payable (Note 15)		**—**		19,578
Derivative financial instruments (Note 7)		**2,815**		2,835
Current portion of provisions (Note 16)		**8,499**		8,979
Current portion of finance lease (Note 17)		**3,559**		2,238
Income tax payable		**25,911**		13,481
		184,286		159,940
Non-current liabilities				
Long-term portion of provisions (Note 16)		**51,444**		45,892
Deferred tax liabilities (Note 28)		**170,863**		142,127
Long-term portion of finance lease (Note 17)		**3,542**		1,759
Long-term debt (Note 18)		**36,200**		36,200
Deferred revenue (Note 12)		**11,561**		—
Other long-term liabilities (Note 19)		**27,408**		30,503
Share purchase warrants (Note 12)		**13,833**		—
Total Liabilities		**499,137**		416,421
Equity				
Capital and reserves (Note 20)				
Issued capital		**2,303,978**		2,298,390
Share option reserve		**22,946**		22,829
Investment revaluation reserve		**434**		(458)
Deficit		**(931,060)**		(1,023,539)
Total Equity attributable to equity holders of the Company		**1,396,298**		1,297,222
Non-controlling interests		**2,706**		1,394
Total Equity		**1,399,004**		1,298,616
Total Liabilities and Equity	**$**	**1,898,141**	$	1,715,037

Commitments and Contingencies (Notes 7, 29); subsequent events (Note 31)
See accompanying notes to the consolidated financial statements
APPROVED BY THE BOARD ON MARCH 22, 2017

"signed" Ross Beaty, Director *"signed" Michael Steinmann, Director*

Pan American Silver Corp.

Consolidated Income Statements

For the years ended December 31, 2016 and 2015

(in thousands of U.S. dollars except per share amounts)

		2016		2015
Revenue (Note 26)	**$**	**774,775**	$	674,688
Cost of sales				
Production costs (Note 21)		**(428,333)**		(532,031)
Depreciation and amortization (Note 10)		**(115,955)**		(150,845)
Royalties		**(31,608)**		(23,901)
		(575,896)		(706,777)
Mine operating earnings (loss)		**198,879**		(32,089)
General and administrative		**(23,663)**		(18,027)
Exploration and project development		**(11,334)**		(11,940)
Foreign exchange losses		**(9,054)**		(13,004)
Impairment charges (Note 11)		**—**		(150,268)
Losses on commodity, diesel fuel swaps, and foreign currency contracts (Note 7)		**(4,944)**		(324)
Gain on sale of mineral properties, plant and equipment (Note 10)		**25,100**		372
Share of loss from associate and dilution gain (Note 12)		**7,946**		—
Other income (expense) (Note 27)		**1,542**		(4,762)
Earnings (loss) from operations		**184,472**		(230,042)
Gain on derivatives (Note 7)		**—**		278
Investment income		**1,350**		2,461
Interest and finance expense (Note 23)		**(9,551)**		(8,452)
Earnings (loss) before income taxes		**176,271**		(235,755)
Income tax (expense) recovery (Note 28)		**(74,446)**		4,199
Net earnings (loss) for the year	**$**	**101,825**	$	(231,556)

See accompanying notes to the consolidated financial statements.

Attributable to:				
Equity holders of the Company	**$**	**100,085**	$	(226,650)
Non-controlling interests		**1,740**		(4,906)
	$	**101,825**	$	(231,556)
Earnings (loss) per share attributable to common shareholders (Note 24)				
Basic earnings (loss) per share	**$**	**0.66**	$	(1.49)
Diluted earnings (loss) per share	**$**	**0.66**	$	(1.49)
Weighted average shares outstanding (in 000’s) Basic		**152,118**		151,664
Weighted average shares outstanding (in 000’s) Diluted		**152,504**		151,664

Pan American Silver Corp.

Consolidated Statements of Comprehensive Income (Loss)

For the years ended December 31, 2016 and 2015
(in thousands of U.S. dollars)

		2016		2015
Net earnings (loss) for the year	**$**	**101,825**	$	(231,556)
Items that may be reclassified subsequently to net earnings:				
Unrealized net gains (losses) on available for sale securities (net of $nil tax in 2016 and 2015)		**912**		(1,459)
Reclassification adjustment for realized (gains) losses on equity securities included in earnings (net of $nil tax in 2016 and 2015)		**(20)**		1,486
Total comprehensive earnings (loss) for the year	**$**	**102,717**	$	(231,529)
Total comprehensive earnings (loss) attributable to:				
Equity holders of the Company	**$**	**100,977**	$	(226,623)
Non-controlling interests		**1,740**		(4,906)
	$	**102,717**	$	(231,529)

See accompanying notes to the consolidated financial statements.

Pan American Silver Corp.

Consolidated Statements of Cash Flows

For the years ended December 31, 2016 and 2015
(in thousands of U.S. dollars)

		2016		2015
Cash flow from operating activities				
Net earnings (loss) for the year	**$**	**101,825**	$	(231,556)
Current income tax expense (Note 28)		**44,031**		15,854
Deferred income tax expense (recovery) (Note 28)		**30,415**		(20,053)
Interest expense (Note 23)		**2,115**		3,640
Depreciation and amortization (Note 10)		**115,955**		150,845
Impairment charges (Note 11)		**—**		150,268
Accretion on closure and decommissioning provision (Note 16)		**4,363**		3,239
Unrealized losses on foreign exchange		**5,759**		860
Share-based compensation expense		**3,826**		2,569
Losses on commodity, diesel fuel swaps, and foreign currency contracts (Note 7)		**4,944**		324
Gain on derivatives (Note 7)		**—**		(278)
Share of loss from associate and dilution gain (Note 12)		**(7,946)**		—
Gain on sale of mineral properties, plant and equipment		**(25,100)**		(372)
Net realizable value adjustment for inventories (Note 21)		**(42,815)**		10,861
Changes in non-cash operating working capital (Note 25)		**(5,545)**		19,840
Operating cash flows before interest and income taxes		**231,827**		106,041
Interest paid		**(2,553)**		(4,472)
Interest received		**1,382**		1,012
Income taxes paid		**(15,852)**		(13,889)
Net cash generated from operating activities	**$**	**214,804**	$	88,692
Cash flow from investing activities				
Payments for mineral properties, plant and equipment	**$**	**(202,661)**	$	(146,735)
Net proceeds from sales of short-term investments		**56,870**		91,296
Proceeds from sale of mineral properties, plant and equipment		**16,319**		647
Net (payments) proceeds from commodity, diesel fuel swaps, and foreign currency contracts		**(4,965)**		2,511
Exercise of warrants and other payments		**(5,460)**		(111)
Net cash used in investing activities	**$**	**(139,897)**	$	(52,392)
Cash flow from financing activities				
Proceeds from issue of equity shares	**$**	**2,399**	$	—
Distributions to non-controlling interests		**(428)**		(545)
Dividends paid		**(7,606)**		(41,703)
Payment of convertible debenture		**—**		(36,235)
Proceeds from credit facility		**—**		36,200
(Payment of) proceeds from short-term loans (Note 15)		**(19,536)**		1,978
Payment of equipment leases		**(3,047)**		(7,531)
Net cash used in financing activities	**$**	**(28,218)**	$	(47,836)
Effects of exchange rate changes on cash and cash equivalents		**229**		(694)
Net increase (decrease) in cash and cash equivalents		**46,918**		(12,230)
Cash and cash equivalents at the beginning of the year		**133,963**		146,193
Cash and cash equivalents at the end of the year	**$**	**180,881**	$	133,963

Supplemental cash flow information (Note 25).
See accompanying notes to the consolidated financial statements.

Pan American Silver Corp.

Consolidated Statements of Changes in Equity

For the years ended December 31, 2016 and 2015

(in thousands of U.S. dollars, except for number of shares)

	Attributable to equity holders of the Company							
	Issued shares	**Issued capital**	**Share option reserve**	**Investment revaluation reserve**	**Retained deficit**	**Total**	**Non-controlling interests**	**Total equity**
Balance, December 31, 2014	**151,643,372**	**$ 2,296,672**	**$ 22,091**	**$ (485)**	**$ (755,186)**	**$ 1,563,092**	**$ 6,845**	**$ 1,569,937**
Total comprehensive loss								
Net loss for the year	—	—	—	—	(226,650)	(226,650)	(4,906)	(231,556)
Other comprehensive income	—	—	—	27	—	27	—	27
	—	—	—	27	(226,650)	(226,623)	(4,906)	(231,529)
Shares issued as compensation (Note 25)	240,362	1,718	—	—	—	1,718	—	1,718
Distributions by subsidiaries to non-controlling interests	—	—	—	—	—	—	(545)	(545)
Share-based compensation on option grants	—	—	738	—	—	738	—	738
Dividends paid	—	—	—	—	(41,703)	(41,703)	—	(41,703)
Balance, December 31, 2015	**151,883,734**	**$ 2,298,390**	**$ 22,829**	**$ (458)**	**$(1,023,539)**	**$ 1,297,222**	**$ 1,394**	**$ 1,298,616**
Total comprehensive loss								
Net earnings for the year	—	—	—	—	100,085	100,085	1,740	101,825
Other comprehensive income	—	—	—	892	—	892	—	892
	—	—	—	892	100,085	100,977	1,740	102,717
Shares issued on the exercise of stock options	254,146	3,223	(824)	—	—	2,399	—	2,399
Shares issued as compensation (Note 25)	196,772	2,365	—	—	—	2,365	—	2,365
Share-based compensation on option grants	—	—	941	—	—	941	—	941
Distributions by subsidiaries to non-controlling interests	—	—	—	—	—	—	(428)	(428)
Dividends paid	—	—	—	—	(7,606)	(7,606)	—	(7,606)
Balance, December 31, 2016	**152,334,652**	**$ 2,303,978**	**$ 22,946**	**$ 434**	**$ (931,060)**	**$ 1,396,298**	**$ 2,706**	**$ 1,399,004**

See accompanying notes to the consolidated financial statements.

1. Nature of Operations

Pan American Silver Corp. is the ultimate parent company of its subsidiary group (collectively, the "Company", or "Pan American"). Pan American Silver Corp. is incorporated and domiciled in Canada, and its office is at Suite 1500 – 625 Howe Street, Vancouver, British Columbia, V6C 2T6.

The Company is engaged in the production and sale of silver, gold and base metals including copper, lead and zinc as well as other related activities, including exploration, extraction, processing, refining and reclamation. The Company's primary product (silver) is produced in Peru, Mexico, Argentina and Bolivia. Additionally, the Company has project development activities in Peru, Mexico and Argentina, and exploration activities throughout South America, Mexico, and the United States.

At December 31, 2016 the Company's principal producing properties were comprised of the Huaron and Morococha mines located in Peru, the Alamo Dorado, La Colorada and Dolores mines located in Mexico, the San Vicente mine located in Bolivia and the Manantial Espejo mine located in Argentina.

The Company's significant development project at December 31, 2016 was the Navidad project in Argentina.

2. Summary of Significant Accounting Policies

a. Statement of Compliance

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). IFRS comprises IFRSs, International Accounting Standards ("IAS"), and interpretations issued by the IFRS Interpretations Committee ("IFRICs") and the former Standing Interpretations Committee ("SIC").

These consolidated financial statements were approved for issuance by the Board of Directors on March 22, 2017.

b. Basis of Preparation

The Company's accounting policies have been applied consistently in preparing these consolidated annual financial statements for the year ended December 31, 2016, and the comparative information as at December 31, 2015.

c. Significant Accounting Policies

Principles of Consolidation: The financial statements consolidate the financial statements of Pan American and its subsidiaries. All intercompany balances, transactions, unrealized profits and losses arising from intra-company transactions have been eliminated in full. The results of subsidiaries acquired or sold are consolidated for the periods from or to the date on which control passes. Control is achieved where the Company is exposed, or has rights, to variable returns from its involvement with an investee and has the ability to affect those returns through its power over the investee. This occurs when the Company has existing rights that give it the current ability to direct the relevant activities, is exposed, or has rights, to variable returns from its involvement with the investee, when the investor's returns from its involvement have the potential to vary as a result of the investee's performance and the ability to use its power over the investee to affect the amount of the investor's returns. Where there is a loss of control of a subsidiary, the consolidated financial statements include the results for the part of the reporting period during which the Company has control. Subsidiaries use the same reporting period and same accounting policies as the Company.

For partly owned subsidiaries, the net assets and net earnings attributable to non-controlling shareholders are presented as "net earnings attributable to non-controlling interests" in the consolidated statements of financial position, and in the consolidated income statements. Total comprehensive income is attributable to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interest having a deficit balance.

The consolidated financial statements include the wholly-owned and partially-owned subsidiaries of the Company; the most significant at December 31, 2016 and 2015 are presented in the following table:

Subsidiary	Location	Ownership Interest	Accounting	Operations and Development Projects Owned
Pan American Silver Huaron S.A.	Peru	100%	Consolidated	Huaron mine
Compañía Minera Argentum S.A.	Peru	92%	Consolidated	Morococha mine
Minera Corner Bay S.A. de C.V.	Mexico	100%	Consolidated	Alamo Dorado mine
Plata Panamericana S.A. de C.V.	Mexico	100%	Consolidated	La Colorada mine
Compañía Minera Dolores S.A. de C.V.	Mexico	100%	Consolidated	Dolores mine
Minera Tritón Argentina S.A.	Argentina	100%	Consolidated	Manantial Espejo mine
Pan American Silver (Bolivia) S.A.	Bolivia	95%	Consolidated	San Vicente mine
Minera Argenta S.A.	Argentina	100%	Consolidated	Navidad Project

Investments in associates: An associate is an entity over which the investor has significant influence but not control and that is neither a subsidiary nor an interest in a joint venture. Significant influence is presumed to exist where the Company has between 20% and 50% of the voting rights, but can also arise where the Company has less than 20%, if the Company has the power to participate in the financial and operating policy decisions affecting the entity. The Company's share of the net assets and net earnings or loss is accounted for in the consolidated financial statements using the equity method of accounting.

Basis of measurement: These consolidated financial statements have been prepared on a historical cost basis except for derivative financial instruments, share purchase warrants and assets classified as at fair value through profit or loss or available-for-sale which are measured at fair value. Additionally, these consolidated financial statements have been prepared using the accrual basis of accounting, except for cash flow information.

Currency of presentation: The consolidated financial statements are presented in United States dollars ("USD"), which is the Company's and each of the subsidiaries' functional and presentation currency, and all values are rounded to the nearest thousand except where otherwise indicated.

Business combinations: Upon the acquisition of a business, the acquisition method of accounting is used, whereby the purchase consideration is allocated to the identifiable assets, liabilities and contingent liabilities (identifiable net assets) acquired on the basis of fair value at the date of acquisition. When the cost of the acquisition exceeds the fair value attributable to the Company's share of the identifiable net assets, the difference is treated as goodwill, which is not amortized and is reviewed for impairment annually or more frequently when there is an indication of impairment. If the fair value attributable to the Company's share of the identifiable net assets exceeds the cost of acquisition, the difference is immediately recognized in the consolidated income statement. Acquisition related costs, other than costs to issue debt or equity securities of the acquirer, including investment banking fees, legal fees, accounting fees, valuation fees, and other professional or consulting fees are expensed as incurred. The costs to issue equity securities of the Company as consideration for the acquisition are reduced from share capital as share issuance costs. The costs to issue debt securities are capitalized and amortized using the effective interest method.

Non-controlling interests are measured either at fair value or at the non-controlling interests' proportionate share of the recognized amounts of the acquirers' identifiable net assets as at the date of acquisition. The choice of measurement basis is made on a transaction by transaction basis.

Control of a business may be achieved in stages. Upon the acquisition of control, any previously held interest is re-measured to fair value at the date control is obtained resulting in a gain or loss upon the acquisition of control.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Company reports provisional amounts for the items for which the accounting is incomplete. These provisional amounts are adjusted during the measurement period, or additional assets or liabilities are recognized, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognized at that date.

Revenue recognition: Revenue associated with the sale of commodities is recognized when all significant risks and rewards of ownership of the asset sold are transferred to the customer, usually when insurance risk and title has passed to the customer and the commodity has been delivered to the shipping agent. At this point the Company retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the commodities and the costs incurred, or to be incurred, in respect of the sale, can be reliably measured. Revenue is recognized at the fair value of the consideration receivable, to the extent that it is probable that economic benefits will flow to the Company and the revenue can be reliably measured. Sales revenue is recognized at the fair value of consideration received, which in most cases is based on invoiced amounts.

The Company's concentrate sales contracts with third-party smelters, in general, provide for a provisional payment based upon provisional assays and quoted metal prices. Final settlement is based on applicable commodity prices set on specified quotational periods, typically ranging from one month prior to shipment, and can extend to three months after the shipment arrives at the smelter and is based on average market metal prices. For this purpose, the selling price can be measured reliably for those products, such as silver, gold, zinc, lead and copper, for which there exists an active and freely traded commodity market such as the London Metals Exchange and the value of product sold by the Company is directly linked to the form in which it is traded on that market.

Sales revenue is commonly subject to adjustments based on an inspection of the product by the customer. In such cases, sales revenue is initially recognized on a provisional basis using the Company's best estimate of contained metal, and adjusted subsequently. Revenues are recorded under these contracts at the time title passes to the buyer based on the expected settlement period. Revenue on provisionally priced sales is recognized based on estimates of the fair value of the consideration receivable based on forward market prices. At each reporting date provisionally priced metal is marked to market based on the forward selling price for the quotational period stipulated in the contract. Variations between the price recorded at the shipment date and the actual final price set under the smelting contracts are caused by changes in metal prices and result in an embedded derivative in the accounts receivable. The embedded derivative is recorded at fair value each period until final settlement occurs, with the fair value adjustments recognized in revenue.

Refining and treatment charges under the sales contract with third-party smelters are netted against revenue for sales of metal concentrate.

The Company recognizes deferred revenue in the event it receives payments from customers in consideration for future commitments to deliver metals and before such sale meets the criteria for revenue recognition. The Company recognizes amounts in revenue as the metals are delivered to the customer. Specifically, for the metal agreements entered into with Maverix Metals Inc. ("Maverix"), the Company determines the amortization of deferred revenue to the Consolidated Income Statement on a per unit basis using the estimated total quantity of metal expected to be delivered to Maverix over the terms of the contract. The Company estimates the current portion of deferred revenue based on quantities anticipated to be delivered over the next twelve months

Financial instruments: A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

(i) Financial assets

The Company classifies its financial assets in the following categories: at fair value through profit or loss, loans and receivables, available-for-sale and held-to-maturity investments. The classification depends on the purpose for which the financial assets were acquired. Management determines the classification of financial assets at initial recognition.

(a) Financial assets at fair value through profit or loss

Financial assets are classified as at fair value through profit or loss when the financial asset is either held for trading or it is designated as at fair value through profit and loss. Derivatives are included in this category and are classified as current assets or non-current assets based on their maturity date. The Company does not acquire financial assets for the purpose of selling in the short term. Financial assets carried at fair value through profit or loss are initially recognized at fair value. The directly attributable transaction costs are expensed in the income statement in the period in which they are incurred. Subsequent changes in fair value are recognized in net earnings.

(b) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Loans and receivables comprise 'trade and other receivables', 'other assets' and 'cash and cash equivalents' in the statement of financial position. Loans and receivables are carried at amortized cost less any impairment.

(c) Available-for-sale financial assets

Available-for-sale financial assets are non-derivatives that are either specifically designated as available-for- sale or not classified in any of the other categories. They are included in non-current assets unless the Company intends to dispose of the investment within 12 months of the statement of financial position date. Changes in the fair value of available-for-sale financial assets denominated in a currency other than the functional currency of the holder, other than equity investments, are analyzed between translation differences and other changes in the carrying amount of the security. The translation differences are recognized in the consolidated income statement. Any impairment charges are also recognized in the consolidated income statement, while other changes in fair value are recognized in the investment revaluation reserve. When financial assets classified as available-for-sale are sold, the accumulated fair value adjustments previously recognized in the investment revaluation reserve are reclassified to the consolidated income statement. Dividends on available-for-sale equity instruments are also recognized in the consolidated income statement within investment income when the Company's right to receive payments is established.

(d) Held-to-maturity investments

Non-derivative financial assets with fixed or determinable payments and fixed maturity are classified as held-to-maturity when the Company has the positive intention and ability to hold to maturity. Other long-term investments that are intended to be held-to-maturity, such as bonds, are measured at amortized cost. This cost is computed as the amount initially recognized minus principal repayments, plus or minus the cumulative amortization using the effective interest method of any difference between the initially recognized amount and the maturity amount. This calculation includes all fees paid or received between parties to the contract that are an integral part of the effective interest rate, transaction costs and all other premiums and discounts. For investments carried at amortized cost, gains and losses are recognized in income when the investments are derecognized or impaired, as well as through the amortization process.

(ii) Financial liabilities

Borrowings and other financial liabilities are classified as other financial liabilities and are recognized initially at fair value, net of transaction costs incurred and are subsequently stated at amortized cost. Any difference between the amounts originally received (net of transaction costs) and the redemption value is recognized in the income statement over the period to maturity using the effective interest method.

Borrowings and other financial liabilities are classified as current liabilities unless the Company has an unconditional right to defer settlement of the liability for at least 12 months after the statement of financial position date.

(iii) Derivative financial instruments

When the Company enters into derivative contracts, these transactions are designed to reduce exposures related to assets and liabilities, firm commitments or anticipated transactions. All derivatives are initially recognized at their fair value on the date the derivative contract is entered into and are subsequently re-measured at their fair value at each statement of financial position date.

Embedded derivatives: Derivatives embedded in other financial instruments or other host contracts are treated as separate derivatives when their risks and characteristics are not closely related to their host contracts.

(iv) Fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Where relevant market prices are available, these are used to determine fair values. In other cases, fair values are calculated using quotations from independent financial institutions, or by using valuation techniques consistent with general market practice applicable to the instrument.

- The fair values of cash and short term borrowings approximate their carrying values as a result of their short maturity or because they carry floating rates of interest.
- Derivative financial assets and liabilities are measured at fair value.

(v) Impairment of financial assets

Available-for-sale financial assets

The Company assesses at each statement of financial position date whether there is objective evidence that a financial asset or a group of financial assets is impaired. In the case of equity securities classified as available for sale, an evaluation is made as to whether a decline in fair value is 'significant' or 'prolonged' based on an analysis of indicators such as significant adverse changes in the technological, market, economic or legal environment in which the investee operates.

If an available-for-sale financial asset is impaired, an amount comprising the difference between its cost (net of any principal payment and amortization) and its current fair value, less any impairment loss previously recognized in the consolidated income statement is transferred from the investment revaluation reserve to the consolidated income statement. Reversals in respect of equity instruments classified as available-for-sale are not recognized in the consolidated income statement. Reversals of impairment losses on debt instruments are reversed through the consolidated income statement if the increase in fair value of the instrument can be objectively related to an event occurring after the impairment loss was recognized.

(vi) Derecognition of financial assets and liabilities

Financial assets

A financial asset is derecognized when its contractual rights to the cash flows that comprise the financial asset expire or substantially all the risks and rewards of the asset are transferred.

Financial liabilities

Gains and losses on discharge, cancellation or expiry of a financial liability are recognized within finance income and finance costs, respectively.

Where an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a settlement of the original liability and the recognition of a new liability, and any difference in the respective carrying amounts is recognized in the income statement.

(vii) Trade receivables

Trade receivables are recognized initially at fair value and are subsequently measured at amortized cost reduced by any provision for impairment. A provision for impairment of trade receivables is established when there is objective evidence that the Company will not be able to collect all amounts due. Indicators of impairment would include financial difficulties of the debtor, likelihood of the debtor's insolvency, default in payment or a significant deterioration in credit worthiness. Any impairment is recognized in the income statement within 'doubtful accounts provision'. When a trade receivable is uncollectable, it is written off against the provision for impairment. Subsequent recoveries of amounts previously written off are credited against 'doubtful accounts provision' in the income statement.

(viii)Accounts payable and accrued liabilities

Accounts payable and accrued liabilities are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method.

(ix) Share purchase warrant liabilities

Share purchase warrant liabilities are recognized initially at fair value and subsequently measured at amortized cost using the effective interest rate method.

Derivative Financial Instruments: The Company utilizes metals and currency contracts, including forward contracts to manage exposure to fluctuations in metal prices and foreign currency exchange rates. For metals production, these contracts are intended to reduce the risk of falling prices on the Company's future sales. Foreign currency derivative financial instruments, such as forward contracts are used to manage the effects of exchange rate changes on foreign currency cost exposures. Such derivative financial instruments are initially recognized at fair value on the date on which a derivative contract is entered into and are subsequently re-measured at fair value. Derivatives are carried as assets when the fair value is positive and as liabilities when the fair value is negative and any gains or losses arising from changes in fair value on derivatives are taken directly to earnings for the year. The fair value of forward currency and commodity contracts is calculated by reference to current forward exchange rates and prices for contracts with similar maturity profiles.

Derivatives, including certain conversion options and warrants with exercise prices in a currency other than the functional currency, are recognized at fair value with changes in fair value recognized in profit or loss.

Normal purchase or sale exemption: Contracts that were entered into and continue to be held for the purpose of the receipt or delivery of a nonfinancial item in accordance with the Company's expected purchase, sale or usage requirements fall under the exemption from IAS 32 and IAS 39, which is known as the "normal purchase or sale exemption" (with the exception of those with quotational period clauses, which result in the recognition of an embedded derivative. Refer to note 7b for more information). For these contracts and the host part of the contracts containing embedded derivatives, they are accounted for as executory contracts. The Company recognizes such contracts in its statement of financial position only when one of the parties meets its obligation under the contract to deliver either cash or a non-financial asset.

Convertible Notes: The Company settled all of its outstanding convertible notes during the year ended December 31, 2015. Previously, the Company had the right to pay all or part of the liability associated with the Company's convertible notes in cash on the conversion date. Accordingly, the Company previously classified the convertible notes as a financial liability with an embedded derivative. The financial liability and embedded derivative was recognized initially at their respective fair values. The embedded derivative was subsequently recognized at fair value with changes in fair value reflected in profit or loss and the debt liability component was recognized at amortized cost using the effective interest method. Interest gains and losses related to the debt liability component or embedded derivatives was recognized in profit or loss. On conversion, the equity instrument would have been measured at the carrying value of the liability component and the fair value of the derivative component on the conversion date.

Cash and cash equivalents: Cash and cash equivalents include cash on hand and cash in banks. It also includes short-term money market investments that are readily convertible to cash with original terms of three months or less. Cash and cash equivalents are classified as loans and receivables and therefore are stated at amortized cost, less any impairment.

Short-term investments: Short-term investments are classified as "available-for-sale", and consist of highly-liquid debt securities with original maturities in excess of three months and equity securities. These debt and equity securities are initially recorded at fair value, which upon their initial measurement is equal to their cost. Subsequent measurements and changes in the market value of these debt and equity securities are recorded as changes to other comprehensive income. Investments are assessed quarterly for potential impairment.

Inventories: Inventories include work in progress, concentrate ore, doré, processed silver and gold, heap leach inventory, and operating materials and supplies. Work in progress inventory includes ore stockpiles and other partly processed material. Stockpiles represent ore that has been extracted and is available for further processing. The classification of inventory is determined by the stage at which the ore is in the production process. Inventories of ore are sampled for metal content and are valued based on the lower of cost or estimated net realizable value based upon the period ending prices of contained metal. Cost is determined on a weighted average basis or using a first-in-first-out basis and includes all costs incurred in the normal course of business including direct material and direct labour costs and an allocation of production overheads, depreciation and amortization, and other costs, based on normal production capacity, incurred in bringing each product to its present location and condition. Material that does not contain a minimum quantity of metal to cover estimated processing expenses to recover the contained metal is not classified as inventory and is assigned no value. The work in progress inventory is considered part of the operating cycle which the Company classifies as current inventory and hence heap leach and stockpiles are included in current inventory. Quantities are assessed primarily through surveys and assays.

The costs incurred in the construction of the heap leach pad are capitalized. Heap leach inventory represents silver and gold contained in ore that has been placed on the leach pad for cyanide irrigation. The heap leach process is a process of extracting silver and gold by placing ore on an impermeable pad and applying a diluted cyanide solution that dissolves a portion of the contained silver and gold, which is then recovered during the metallurgical process. When the ore is placed on the pad, an estimate of the recoverable ounces is made based on tonnage, ore grade and estimated recoveries of the ore type placed on the pad. The estimated recoverable ounces on the pad are used to compile the inventory cost.

The Company uses several integrated steps to scientifically measure the metal content of the ore placed on the leach pads. The tonnage, grade, and ore type to be mined in a period was first estimated using the Mineral Reserve model. As the ore body is drilled in preparation for the blasting process, samples are taken of the drill residue which is assayed to determine their metal content and quantities of contained metal. The estimated recoverable ounces carried in the leach pad inventory are adjusted based on actual recoveries being experienced. Actual and estimated recoveries achieved are measured to the extent possible using various indicators including, but not limited to, individual cell recoveries, the use of leach curve recovery and trends in the levels of carried ounces depending on the circumstances or cumulative pad recoveries.

The Company then processes the ore through the crushing facility where the output is again weighed and sampled for assaying. A metallurgical reconciliation with the data collected from the mining operation is completed with appropriate adjustments made to previous estimates. The crushed ore is then transported to the leach pad for application of the leaching solution. The samples from the automated sampler are assayed each shift and used for process control. The quantity of leach solution is measured by flow meters throughout the leaching and precipitation process. The pregnant solution from the heap leach is collected and passed through the processing circuit to produce precipitate which is retorted and then smelted to produce doré bars.

The Company allocates direct and indirect production costs to by-products on a systematic and rational basis. With respect to concentrate and doré inventory, production costs are allocated based on the silver equivalent ounces contained within the respective concentrate and doré.

The inventory is stated at lower of cost or net realizable value, with cost being determined using a weighted average cost method. The ending inventory value of ounces associated with the leach pad is equal to opening recoverable ounces plus recoverable ounces placed less ounces produced plus or minus ounce adjustments.

The estimate of both the ultimate recovery expected over time and the quantity of metal that may be extracted relative to the time the leach process occurs requires the use of estimates which rely upon laboratory test work and estimated models of the leaching kinetics in the heap leach pads. Test work consists of leach columns of up to 400 days duration with 150 days being the average, from which the Company projects metal recoveries up to three years in the future. The quantities of metal contained in the ore are based upon actual weights and assay analysis. The rate at which the leach process extracts gold and silver from the crushed ore is based upon laboratory column tests and actual experience. The assumptions used by the Company to measure metal content during each stage of the inventory conversion process include estimated recovery rates based on laboratory testing and assaying. The Company periodically reviews its estimates compared to actual experience and revises its estimates when appropriate. The ultimate recovery will not be known until the leaching operations cease.

Supplies inventories are valued at the lower of average cost and net realizable value using replacement cost plus cost to dispose, net of obsolescence. Concentrate and doré inventory includes product at the mine site, the port warehouse and product held by refineries. At times, the Company has a limited amount of finished silver at a minting operation where coins depicting Pan American's emblem are stamped.

Mineral Properties, Plant, and Equipment: On initial acquisition, mineral properties, plant and equipment are valued at cost, being the purchase price and the directly attributable costs of acquisition or construction required to bring the asset to the location and condition necessary for the asset to be capable of operating in the manner intended by management. When provisions for closure and decommissioning are recognized, the corresponding cost is capitalized as part of the cost of the related assets, representing part of the cost of acquiring the future economic benefits of the operation. The capitalized cost of closure and decommissioning activities is recognized in mineral property, plant and equipment and depreciated accordingly.

In subsequent periods, buildings, plant and equipment are stated at cost less accumulated depreciation and any impairment in value, whilst land is stated at cost less any impairment in value and is not depreciated.

Each asset's or part's estimated useful life has due regard to both its own physical life limitations and the present assessment of economically recoverable reserves of the mine property at which the item is located, and to possible future variations in those assessments. Estimates of remaining useful lives and residual values are reviewed annually. Changes in estimates are accounted for prospectively.

The expected useful lives are included below in the accounting policy for depreciation of property, plant, and equipment. The net carrying amounts of mineral property, land, buildings, plant and equipment are reviewed for impairment either individually or at the cash-generating unit level when events and changes in circumstances indicate that the carrying amounts may not be recoverable. To the extent that these values exceed their recoverable amounts, that excess is recorded as an impairment provision in the financial year in which this is determined.

In countries where the Company paid Value Added Tax ("VAT") and where there is uncertainty of its recoverability, the VAT payments have either been deferred with mineral property costs relating to the property or expensed if it relates to mineral exploration. If the Company ultimately recovers previously deferred amounts, the amount received will be applied to reduce mineral property costs or taken as a credit against current expenses depending on the prior treatment.

Expenditure on major maintenance or repairs includes the cost of the replacement of parts of assets and overhaul costs. Where an asset or part of an asset is replaced and it is probable that future economic benefits associated with the item will be available to the Company, the expenditure is capitalized and the carrying amount of the item replaced derecognized. Similarly, overhaul costs associated with major maintenance are capitalized and depreciated over their useful lives where it is probable that future economic benefits will be available and any remaining carrying amounts of the cost of previous overhauls are derecognized. All other costs are expensed as incurred.

Where an item of mineral property, plant and equipment is disposed of, it is derecognized and the difference between its carrying value and net sales proceeds is disclosed as earnings or loss on disposal in the income statement. Any items of mineral property, plant or equipment that cease to have future economic benefits are derecognized with any gain or loss included in the financial year in which the item is derecognized.

Operational Mining Properties and Mine Development: When it has been determined that a mineral property can be economically developed as a result of establishing proven and probable reserves (which occurs upon completion of a positive economic analysis of the mineral deposit), the costs incurred to develop such property including costs to further delineate the ore body and remove overburden to initially expose the ore body prior to the start of mining operations, are also capitalized. Such costs are amortized using the units-of-production method over the estimated life of the ore body based on proven and probable reserves.

Costs associated with commissioning activities on constructed plants are deferred from the date of mechanical completion of the facilities until the date the Company is ready to commence commercial production. Any revenues earned during this period are recorded as a reduction in deferred commissioning costs. These costs are amortized using the units-of-production method (described below) over the life of the mine, commencing on the date of commercial production.

Acquisition costs related to the acquisition of land and mineral rights are capitalized as incurred. Prior to acquiring such land or mineral rights, the Company makes a preliminary evaluation to determine that the property has significant potential to economically develop the deposit. The time between initial acquisition and full evaluation of a property's potential is dependent on many factors including: location relative to existing infrastructure, the property's stage of development, geological controls and metal prices. If a mineable deposit is discovered, such costs are amortized when production begins. If no mineable deposit is discovered, such costs are expensed in the period in which it is determined the property has no future economic value. In countries where the Company has paid VAT and where there is uncertainty of its recoverability, the VAT payments have either been deferred with mineral property costs relating to the property or expensed if it relates to mineral exploration. If the Company ultimately makes recoveries of the VAT, the amount received will be applied to reduce mineral property costs or taken as a credit against current expenses depending on the prior treatment.

Major development expenditures on producing properties incurred to increase production or extend the life of the mine are capitalized while ongoing mining expenditures on producing properties are charged against earnings as incurred. Gains or losses from sales or retirements of assets are included in gain or loss on sale of assets.

Depreciation of Mineral Property, Plant and Equipment: The carrying amounts of mineral property, plant and equipment (including initial and any subsequent capital expenditure) are depreciated to their estimated residual value over the estimated useful lives of the specific assets concerned, or the estimated life of the associated mine or mineral lease, if shorter. Estimates of residual values and useful lives are reviewed annually and any change in estimate is taken into account in the determination of remaining depreciation charges, and adjusted if appropriate, at each statement of financial position date. Changes to the estimated residual values or useful lives are accounted for prospectively. Depreciation commences on the date when the asset is available for use as intended by management.

Units of production basis

For mining properties and leases and certain mining equipment, the economic benefits from the asset are consumed in a pattern which is linked to the production level. Except as noted below, such assets are depreciated on a units of production basis.

In applying the units of production method, depreciation is normally calculated using the quantity of material extracted from the mine in the period as a percentage of the total quantity of material to be extracted in current and future periods based on proven and probable reserves.

Straight line basis

Assets within operations for which production is not expected to fluctuate significantly from one year to another or which have a physical life shorter than the related mine are depreciated on a straight line basis.

Mineral properties, plant and equipment are depreciated over their useful life, or over the remaining life of the mine if shorter. The major categories of property, plant and equipment are depreciated on a unit of production and/or straight-line basis as follows:

- Land – not depreciated
- Mobile equipment – 3 to 7 years
- Buildings and plant facilities – 25 to 50 years
- Mining properties and leases – based on reserves on a unit of production basis. Capitalized evaluation and development expenditure – based on applicable reserves on a unit of production basis
- Exploration and evaluation – not depreciated until mine goes into production
- Assets under construction – not depreciated until assets are ready for their intended use

Exploration and Evaluation Expenditure: relates to costs incurred on the exploration and evaluation of potential mineral reserves and resources and includes costs such as exploratory drilling and sample testing and the costs of pre-feasibility studies. Exploration expenditures relates to the initial search for deposits with economic potential. Evaluation expenditures arise from a detailed assessment of deposits or other projects that have been identified as having economic potential.

Expenditures on exploration activity are not capitalized.

Capitalization of evaluation expenditures commences when there is a high degree of confidence in the project's viability and hence it is probable that future economic benefits will flow to the Company.

Evaluation expenditures, other than that acquired from the purchase of another mining company, is carried forward as an asset provided that such costs are expected to be recovered in full through successful development and exploration of the area of interest or alternatively, by its sale.

Purchased exploration and evaluation assets are recognized as assets at their cost of acquisition or at fair value if purchased as part of a business combination.

In the case of undeveloped projects there may be only inferred resources to form a basis for the impairment review. The review is based on a status report regarding the Company's intentions for the development of the undeveloped project. In some cases, the undeveloped projects are regarded as successors to ore bodies, smelters or refineries currently in production. Where this is the case, it is intended that these will be developed and go into production when the current source of ore is exhausted or to replace the reduced output, which results where existing smelters and/or refineries are closed. It is often the case that technological and other improvements will allow successor smelters and/or refineries to more than replace the capacity of their predecessors. Subsequent recovery of the resulting carrying value depends on successful development or sale of the undeveloped project. If a project does not prove viable, all unrecoverable costs associated with the project, net of any related impairment provisions, are written off.

An impairment review is performed, either individually or at the cash generating unit level, when there are indicators that the carrying amount of the assets may exceed their recoverable amounts. To the extent that this occurs, the excess is expensed in the financial year in which this is determined. Capitalized exploration and evaluation assets are reassessed on a regular basis and these costs are carried forward provided that the conditions discussed above for expenditure on exploration activity and evaluation expenditures are met.

Expenditures are transferred to mining properties and leases or assets under construction once the technical feasibility and commercial viability of extracting a mineral resource are demonstrable and the work completed to date supports the future development of the property. In order to demonstrate technical feasibility and commercial viability, the Company evaluates the individual project and its established mineral reserves, assesses the relevant findings and conclusions from the Company's activities and in applicable technical or other studies relating to the project, and considers whether and how any additional factors and circumstances might impact the project, particularly in light of the Company's capabilities, risk tolerance and desired economic returns. The Company conducts its managerial evaluation for commercial viability by assessing the factors it considers relevant to the commercial development of the project, taking into consideration the exploration and technical evaluation activities and work undertaken in relation to the project. If the asset demonstrates technical feasibility and commercial viability, the asset is reclassified to mineral properties, plant and equipment. Assessment for impairment is conducted before reclassification.

Deferred Stripping Costs: In open pit mining operations, it is necessary to remove overburden and other waste in order to access the ore body. During the preproduction phase, these costs are capitalized as part of the cost of the mine property and subsequently amortized over the life of the mine (or pit) on a units of production basis.

The costs of removal of the waste material during a mine's production phase are deferred where they give rise to future benefits. These capitalized costs are subsequently amortized on a unit of production basis over the reserves that directly benefit from the specific stripping activity.

Asset Impairment: Management reviews and evaluates its assets for impairment when events or changes in circumstances indicate that the related carrying amounts may not be recoverable. Impairment is normally assessed at the level of cash-generating units which are identified as the smallest identifiable group of assets that generate cash inflows that are largely independent of the cash inflows from other assets. In addition, an impairment loss is recognized for any excess of carrying amount over the fair value less costs to sell of a non-current asset or disposal group held for sale. When an impairment review is undertaken, recoverable amount is assessed by reference to the higher of value in use (being the net present value of expected future cash flows of the relevant cash generating unit) and fair value less costs to sell ("FVLCTS"). The best evidence of FVLCTS is the value obtained from an active market or binding sale agreement. Where neither exists, FVLCTS is based on the best information available to reflect the amount the Company could receive for the cash generating unit in an arm's length transaction. This is often estimated using discounted cash flow techniques.

Where the recoverable amount is assessed using discounted cash flow techniques, the resulting estimates are based on detailed mine and/or production plans. For value in use, recent cost levels are considered, together with expected changes in costs that are compatible with the current condition of the business and which meet the requirements of IAS 36 "Impairment of Assets." The cash flow forecasts are based on best estimates of expected future revenues and costs, including the future cash costs of production, capital expenditure, close down, restoration and environmental clean-up. These may include net cash flows expected to be realized from extraction, processing and sale of mineral resources that do not currently qualify for inclusion in proven or probable ore reserves. Such non reserve material is included where there is a high degree of confidence in its economic extraction. This expectation is usually based on preliminary drilling and sampling of areas of mineralization that are contiguous with existing reserves. Typically, the additional evaluation to achieve reserve status for such material has not yet been done because this would involve incurring costs earlier than is required for the efficient planning and operation of the mine.

Where the recoverable amount of a cash generating unit is dependent on the life of its associated ore, expected future cash flows reflect long term mine plans, which are based on detailed research, analysis and iterative modeling to optimize the level of return from investment, output and sequence of extraction. The mine plan takes account of all relevant characteristics of the ore, including waste to ore ratios, ore grades, haul distances, chemical and metallurgical properties of the ore impacting on process recoveries and capacities of processing equipment that can be used. The mine plan is therefore the basis for forecasting production output in each future year and for forecasting production costs.

The Company’s cash flow forecasts are based on estimates of future commodity prices, which assume market prices will revert to the Company’s assessment of the long term average price, generally over a period of three to five years. These assessments often differ from current price levels and are updated periodically.

The discount rates applied to the future cash flow forecasts represent an estimate of the rate the market would apply having regard to the time value of money and the risks specific to the asset for which the future cash flow estimates have not been adjusted, including appropriate adjustments for the risk profile of the countries in which the individual cash generating units operate. The great majority of the Company’s sales are based on prices denominated in USD. To the extent that the currencies of countries in which the Company produces commodities strengthen against the USD without commodity price offset, cash flows and, therefore, net present values are reduced. Non-financial assets other than goodwill that have suffered impairment are tested for possible reversal of the impairment whenever events or changes in circumstances indicate that the impairment may have reversed.

Closure and Decommissioning Costs: The mining, extraction and processing activities of the Company normally give rise to obligations for site closure or rehabilitation. Closure and decommissioning works can include facility decommissioning and dismantling; removal or treatment of waste materials; site and land rehabilitation. The extent of work required and the associated costs are dependent on the requirements of relevant authorities and the Company’s environmental policies. Provisions for the cost of each closure and rehabilitation program are recognized at the time that environmental disturbance occurs. When the extent of disturbance increases over the life of an operation, the provision is increased accordingly. Costs included in the provision encompass all closure and decommissioning activity expected to occur progressively over the life of the operation and at the time of closure in connection with disturbances at the reporting date. Routine operating costs that may impact the ultimate closure and decommissioning activities, such as waste material handling conducted as an integral part of a mining or production process, are not included in the provision. Costs arising from unforeseen circumstances, such as the contamination caused by unplanned discharges, are recognized as an expense and liability when the event gives rise to an obligation which is probable and capable of reliable estimation. The timing of the actual closure and decommissioning expenditure is dependent upon a number of factors such as the life and nature of the asset, the operating license conditions, and the environment in which the mine operates. Expenditures may occur before and after closure and can continue for an extended period of time dependent on closure and decommissioning requirements. Closure and decommissioning provisions are measured at the expected value of future cash flows, discounted to their present value and determined according to the probability of alternative estimates of cash flows occurring for each operation. Discount rates used are specific to the underlying obligation. Significant judgements and estimates are involved in forming expectations of future activities and the amount and timing of the associated cash flows. Those expectations are formed based on existing environmental and regulatory requirements which give rise to a constructive or legal obligation.

When provisions for closure and decommissioning are initially recognized, the corresponding cost is capitalized as a component of the cost of the related asset, representing part of the cost of acquiring the future economic benefits of the operation. The capitalized cost of closure and decommissioning activities is recognized in Property, plant and equipment and depreciated accordingly. The value of the provision is progressively increased over time as the effect of discounting unwinds, creating an expense recognized in finance expenses. Closure and decommissioning provisions are also adjusted for changes in estimates. Those adjustments are accounted for as a change in the corresponding capitalized cost, except where a reduction in the provision is greater than the un-depreciated capitalized cost of the related assets, in which case the capitalized cost is reduced to nil and the remaining adjustment is recognized in the income statement. In the case of closed sites, changes to estimated costs are recognized immediately in the income statement. Changes to the capitalized cost result in an adjustment to future depreciation and finance charges. Adjustments to the estimated amount and timing of future closure and decommissioning cash flows are a normal occurrence in light of the significant judgements and estimates involved.

The provision is reviewed at the end of each reporting period for changes to obligations, legislation or discount rates that impact estimated costs or lives of operations and adjusted to reflect current best estimate. The cost of the related asset is adjusted for changes in the provision resulting from changes in the estimated cash flows or discount rate and the adjusted cost of the asset is depreciated prospectively.

Foreign Currency Translation: The Company's functional currency and that of its subsidiaries is the USD as this is the principal currency of the economic environments in which they operate. Transaction amounts denominated in foreign currencies (currencies other than USD) are translated into USD at exchange rates prevailing at the transaction dates. Carrying values of foreign currency monetary assets and liabilities are re-translated at each statement of financial position date to reflect the U.S. exchange rate prevailing at that date.

Gains and losses arising from translation of foreign currency monetary assets and liabilities at each period end are included in earnings except for differences arising on decommissioning provisions which are capitalized for operating mines.

Share-based Payments: The Company makes share-based awards, including restricted share units ("RSUs), performance share units ("PSUs"), shares and options, to certain employees.

For equity-settled awards, the fair value is charged to the income statement and credited to equity, on a straight-line basis over the vesting period, after adjusting for the estimated number of awards that are expected to vest. The fair value of the equity-settled awards is determined at the date of grant. Non-vesting conditions and market conditions, such as target share price upon which vesting is conditioned, are factored into the determination of fair value at the date of grant. All other vesting conditions are excluded from the determination of fair value and included in management's estimate of the number of awards ultimately expected to vest.

The fair value is determined by using option pricing models. At each statement of financial position date prior to vesting, the cumulative expense representing the extent to which the vesting period has expired and management's best estimate of the awards that are ultimately expected to vest is computed (after adjusting for non-market performance conditions). The movement in cumulative expense is recognized in the income statement with a corresponding entry within equity. No expense is recognized for awards that do not ultimately vest, except for awards where vesting is conditional upon a market condition, which are treated as vested irrespective of whether or not the market condition is satisfied, provided that all other performance conditions are satisfied.

Where the terms of an equity-settled award are modified, as a minimum an expense is recognized as if the terms had not been modified over the original vesting period. In addition, an expense is recognized for any modification, which increases the total fair value of the share-based payment arrangement, or is otherwise beneficial to the employee as measured at the date of modification, over the remainder of the new vesting period.

Where an equity-settled award is cancelled, it is treated as if it had vested on the date of cancellation, and any expense not yet recognized for the award is recognized immediately. Any compensation paid up to the fair value of the awards at the cancellation or settlement date is deducted from equity, with any excess over fair value being treated as an expense in the income statement. However, if a new award is substituted for the cancelled award, and designated as a replacement award on the date that it is granted, the new awards are treated as if they are a modification of the original award, as described in the previous paragraph.

Leases: The determination of whether an arrangement is, or contains a lease is based in the substance of the arrangement at the inception date, including whether the fulfillment of the arrangement is dependent on the use of a specific asset or assets or whether the arrangement conveys a right to use the asset. A reassessment after inception is only made in specific circumstances.

Assets held under finance leases, where substantially all the risks and rewards of ownership of the asset have passed to the Company, are capitalized in the statement of financial position at the lower of the fair value of the leased property or the present value of the minimum lease payments during the lease term calculated using the interest rate implicit in the lease agreement. These amounts are determined at the inception of the lease and are depreciated over the shorter of their estimated useful lives or the lease term. The capital elements of future obligations under leases and hire purchase contracts are included as liabilities in the statement of financial position. The interest elements of the lease or hire purchase obligations are charged to the income statement over the periods of the leases and hire purchase contracts and represent a constant proportion of the balance of capital repayments outstanding.

Leases where substantially all the risks and rewards of ownership have not passed to the Company are classified as operating leases. Rentals payable under operating leases are charged to the income statement on a straight-line basis over the lease term.

Income Taxes: Taxation on the earnings or loss for the year comprises current and deferred tax. Taxation is recognized in the income statement except to the extent that it relates to items recognized in other comprehensive income or directly in equity, in which case the tax is recognized in other comprehensive income or equity.

Current tax is the expected tax payable on the taxable income for the year using rates enacted or substantively enacted at the year end, and includes any adjustment to tax payable in respect of previous years.

Deferred tax is provided using the statement of financial position liability method, providing for the tax effect of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for tax assessment or deduction purposes. Where an asset has no deductible or depreciable amount for income tax purposes, but has a deductible amount on sale or abandonment for capital gains tax purposes, that amount is included in the determination of temporary differences.

The tax effect of certain temporary differences is not recognized, principally with respect to goodwill; temporary differences arising on the initial recognition of assets or liabilities (other than those arising in a business combination or in a manner that initially impacted accounting or taxable earnings); and temporary differences relating to investments in subsidiaries, jointly controlled entities and associates to the extent that the Company is able to control the reversal of the temporary difference and the temporary difference is not expected to reverse in the foreseeable future. The amount of deferred tax recognized is based on the expected manner and timing of realization or settlement of the carrying amount of assets and liabilities, with the exception of items that have a tax base solely derived under capital gains tax legislation, using tax rates enacted or substantively enacted at period end. To the extent that an item's tax base is solely derived from the amount deductible under capital gains tax legislation, deferred tax is determined as if such amounts are deductible in determining future assessable income.

The carrying amount of deferred income tax assets is reviewed at each statement of financial position date and reduced to the extent that it is no longer probable that sufficient taxable earnings will be available to allow all or part of the deferred income tax asset to be utilized. To the extent that an asset not previously recognized fulfils the criteria for recognition, a deferred income tax asset is recorded.

Deferred tax is measured on an undiscounted basis at the tax rates that are expected to apply in the periods in which the asset is realized or the liability is settled, based on tax rates and tax laws enacted or substantively enacted at the statement of financial position date.

Current and deferred taxes relating to items recognized in other comprehensive income or directly in equity are recognized in other comprehensive income or equity and not in the income statement. Mining taxes and royalties are treated and disclosed as current and deferred taxes if they have the characteristics of an income tax. Judgements are required about the application of income tax legislation. These judgements and assumptions are subject to risk and uncertainty, hence there is a possibility that changes in circumstances will alter expectations, which may impact the amount of deferred tax assets and deferred tax liabilities recognized on the statement of financial position and the amount of other tax losses and temporary differences not yet recognized. In such circumstances, some or the entire carrying amount of recognized deferred tax assets and liabilities may require adjustment, resulting in a corresponding credit or charge to the income statement.

Deferred tax assets, including those arising from tax losses, capital losses and temporary differences, are recognized only where it is probable that taxable earnings will be available against which the losses or deductible temporary differences can be utilized. Assumptions about the generation of future taxable earnings and repatriation of retained earnings depend on management's estimates of future cash flows. These depend on estimates of future production and sales volumes, commodity prices, reserves, operating costs, closure and decommissioning costs, capital expenditures, dividends and other capital management transactions.

Earnings (loss) Per Share: Basic earnings (loss) per share is calculated by dividing earnings attributable to ordinary equity holders of the parent entity by the weighted average number of ordinary shares outstanding during the period.

The diluted earnings per share calculation is based on the earnings attributable to ordinary equity holders and the weighted average number of shares outstanding after adjusting for the effects of all potential ordinary shares. This method requires that the number of shares used in the calculation be the weighted average number of shares that would be issued on the conversion of all the dilutive potential ordinary shares into ordinary shares. This method assumes that the potential ordinary shares converted into ordinary shares at the beginning of the period (or at the time of issuance, if not in existence at beginning of the period). The number of dilutive potential ordinary shares is determined independently for each period presented.

For convertible securities that may be settled in cash or shares at the holder's option, returns to preference shareholders and income charges are added back to net earnings used for basic EPS and the maximum number of ordinary shares that could be issued on conversion is used in computing diluted earnings per share.

Borrowing Costs and Upfront Costs: Borrowing costs that are directly attributable to the acquisition, construction or production of qualifying assets are capitalized. Qualifying assets are assets that require a substantial amount of time to prepare for their intended use, including mineral properties in the evaluation stage where there is a high likelihood of commercial exploitation. Qualifying assets also include significant expansion projects at the operating mines. Borrowing costs are considered an element of the historical cost of the qualifying asset. Capitalization ceases when the asset is substantially complete or if construction is interrupted for an extended period. Where the funds used to finance a qualifying asset form part of general borrowings, the amount capitalized is calculated using a weighted average of rates applicable to the relevant borrowings during the period. Where funds borrowed are directly attributable to a qualifying asset, the amount capitalized represents the borrowing costs specific to those borrowings. Where surplus funds available out of money borrowed specifically to finance a project are temporarily invested, the total borrowing cost is reduced by income generated from short-term investments of such funds.

Upfront costs incurred in connection with entering new credit facilities are recorded as Other assets and are amortized over the life of the respective credit facilities.

3. Changes in Accounting Standards

Application of new and revised accounting standards

The Company has applied the amendments to IFRSs included in the Annual Improvements to IFRSs 2012-2014 Cycle which were effective for annual periods beginning on or after January 1, 2016. The amendments did not have an impact on the Company's consolidated financial statements.

Changes in accounting standards not yet effective

The Company has not early adopted any amendment, standard or interpretation that has been issued by the IASB but is not yet effective.

IFRS 9 *Financial Instruments* ("IFRS 9") was issued by the IASB on July 24, 2014 and will replace IAS 39 Financial Instruments: Recognition and Measurement. IFRS 9 utilizes a single approach to determine whether a financial asset is measured at amortized cost or fair value and a new mixed measurement model for debt instruments having only two categories: amortized cost and fair value. The approach in IFRS 9 is based on how an entity manages its financial instruments in the context of its business model and the contractual cash flow characteristics of the financial assets. Final amendments released on July 24, 2014 also introduce a new expected loss impairment model and limited changes to the classification and measurement requirements for financial assets. IFRS 9 is effective for annual periods beginning on or after January 1, 2018. The Company is currently evaluating the impact the final standard and amendments on its consolidated financial statements.

IFRS 15, *Revenue from Contracts with Customers* ("IFRS 15") In May 2014, the IASB and the Financial Accounting Standards Board ("FASB") completed its joint project to clarify the principles for recognizing revenue and to develop a common revenue standard for IFRS and US GAAP. As a result of the joint project, the IASB issued IFRS 15, Revenue from Contracts with Customers, and will replace IAS 18, Revenue, IAS 11, Construction Contracts, and related interpretations on revenue. IFRS 15 establishes principles to address the nature, amount, timing and uncertainty of revenue and cash flows arising from an entity's contracts with customers. The standard is effective for annual periods beginning on or after January 1, 2018. The Company plans to apply IFRS 15 at the date it becomes effective. The Company is in the process of analyzing IFRS 15 and determining the effect on its consolidated financial statements as a result of adopting this standard.

IFRS 16, *Leases* ("IFRS 16") In January 2016, the IASB issued IFRS 16 - *Leases* which replaces IAS 17 - *Leases* and its associated interpretative guidance. IFRS 16 applies a control model to the identification of leases, distinguishing between a lease and a service contract on the basis of whether the customer controls the asset being leased. For those assets determined to meet the definition of a lease, IFRS 16 introduces significant changes to the accounting by lessees, introducing a single, on-balance sheet accounting model that is similar to current finance lease accounting, with limited exceptions for short-term leases or leases of low value assets. Lessor accounting remains similar to current accounting practice. The standard is effective for annual periods beginning on or after January 1, 2019, with early application permitted for entities that apply IFRS 15. The Company is currently evaluating the impact the final standard is expected to have on its consolidated financial statements.

IFRIC Interpretation 22 Foreign Currency Transactions and Advance Consideration ("IFRIC 22") On December 8, 2016, the IASB issued IFRIC 22, which addresses the exchange rate to use in transactions that involve advance consideration paid or received in a foreign currency. The Standard provides guidance on how to determine the date of the transaction for the purpose of determining the spot exchange rate used to translate the asset, expense or income on initial recognition that relates to, and is recognized on the de-recognition of, a non-monetary prepayment asset or a non-monetary deferred income liability. It is effective January 1, 2018. The Company is currently assessing the impact on the adoption of this interpretation.

4. Significant Judgements in Applying Accounting Policies

Judgements that have the most significant effect on the amounts recognized in the Company's consolidated financial statements are as follows:

- *Capitalization of evaluation costs:* The Company has determined that evaluation costs capitalized during the year relating to the operating mines and certain other exploration interests have potential future economic benefits and are potentially economically recoverable, subject to the impairment analysis as discussed in Note 11. In making this judgement, the Company has assessed various sources of information including but not limited to the geologic and metallurgic information, history of conversion of mineral deposits to proven and probable mineral reserves, scoping and feasibility studies, proximity to existing ore bodies, operating management expertise and required environmental, operating and other permits.

- *Commencement of commercial production:* During the determination of whether a mine has reached an operating level that is consistent with the use intended by management, costs incurred are capitalized as mineral property, plant and equipment and any consideration from commissioning sales are offset against costs capitalized. The Company defines commencement of commercial production as the date that a mine has achieved a sustainable level of production based on a percentage of design capacity along with various qualitative factors including but not limited to the achievement of mechanical completion, continuous nominated level of production, the working effectiveness of the plant and equipment at or near expected levels and whether there is a sustainable level of production input available including power, water and diesel.

- *Assets' carrying values and impairment charges:* In determining carrying values and impairment charges the Company looks at recoverable amounts, defined as the higher of value in use or fair value less cost to sell in the case of non-financial assets, and at objective evidence that identifies significant or prolonged decline of fair value on financial assets classified as available-for-sale indicating impairment. These determinations and their individual assumptions require that management make a decision based on the best available information at each reporting period.

- *Functional currency:* The functional currency for the Company and its subsidiaries is the currency of the primary economic environment in which each operates. The Company has determined that its functional currency and that of its subsidiaries is the USD. The determination of functional currency may require certain judgements to determine the primary economic environment. The Company reconsiders the functional currency used when there is a change in events and conditions which determined the primary economic environment.

- *Business combinations:* Determination of whether a set of assets acquired and liabilities assumed constitute a business may require the Company to make certain judgments, taking into account all facts and circumstances. A business consists of inputs, including non-current assets and processes, including operational processes, that when applied to those inputs have the ability to create outputs that provide a return to the Company and its shareholders.

- *Determination of control of subsidiaries and joint arrangements:* Determination of whether the Company has control of subsidiaries or joint control of joint arrangements requires an assessment of the activities of the investee that significantly affect the investee's returns, including strategic, operational and financing decision-making, appointment, remuneration and termination of the key management personnel and when decisions related to those activities are under the control of the Company or require unanimous consent from the investors. Based on assessment of the relevant facts and circumstances, primarily, the Company's limited board representation and restricted influence over operating, strategic and financing decisions, the Company concluded that it does not control Maverix and as a result classified it as an investment in associate subject to significant influence (Note 12).

- *Deferral of stripping costs:* In determining whether stripping costs incurred during the production phase of a mining property relate to mineral reserves that will be mined in a future period and therefore should be capitalized, the Company treats the costs of removal of the waste material during a mine's production phase as deferred, where it gives rise to future benefits. These capitalized costs are subsequently amortized on a unit of production basis over the reserves that directly benefit from the specific stripping activity. As at December 31, 2016, the carrying amount of stripping costs capitalized was $40.3 million comprised entirely of Dolores (2015 - $39.5 million was capitalized comprised of Manantial Espejo $3.2 million and Dolores $36.3 million).

- *Replacement convertible debenture:* As part of the 2009 Aquiline transaction, the Company issued a replacement convertible debenture that allowed the holder to convert the debenture into either 363,854 Pan American shares or a Silver Stream contract. The holder subsequently selected the Silver Stream contract. The Silver Stream contract is classified and accounted for as a deferred credit. In determining the appropriate classification of the convertible debenture as a deferred credit, the Company evaluated the economics underlying the contract as of the date the Company assumed the obligation. As at December 31, 2016, the carrying amount of the deferred credit arising from the Aquiline acquisition was $20.8 million (2015 - $20.8 million).

5. Key Sources of Estimation Uncertainty in the Application of Accounting Policies

Key sources of estimation uncertainty that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities are:

- *Revenue recognition:* Revenue from the sale of concentrate to independent smelters is recorded at the time the risks and rewards of ownership pass to the buyer using forward market prices on the expected date that final sales prices will be fixed. Variations between the prices set under the smelting contracts may be caused by changes in market prices and result in an embedded derivative in the accounts receivable. The embedded derivative is recorded at fair value each period until final settlement occurs, with changes in the fair value classified in revenue. In a period of high price volatility, as experienced under current economic conditions, the effect of mark-to-market price adjustments related to the quantity of metal which remains to be settled with independent smelters could be significant. For changes in metal quantities upon receipt of new information and assay, the provisional sales quantities are adjusted.

- *Estimated recoverable ounces:* The carrying amounts of the Company's mining properties are depleted based on recoverable ounces. Changes to estimates of recoverable ounces and depletable costs including changes resulting from revisions to the Company's mine plans and changes in metal price forecasts can result in a change to future depletion rates.

- *Mineral reserve estimates:* The figures for mineral reserves and mineral resources are disclosed in accordance with National Instrument 43 -101, "Standards of Disclosure for Mineral Projects", issued by the Canadian Securities Administrators and in accordance with "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines – adopted November 23, 2003", prepared by the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Standing Committee on Reserve Definitions. There are numerous uncertainties inherent in estimating mineral reserves and mineral resources, including many factors beyond the Company's control. Such estimation is a subjective process, and the accuracy of any mineral reserve or mineral resource estimate is a function of the quantity and quality of available data and of the assumptions made and judgments used in engineering and geological interpretation. Differences between management's assumptions including economic assumptions such as metal prices and market conditions could have a material effect in the future on the Company's financial position and results of operation.

- *Valuation of Inventory:* In determining mine production costs recognized in the consolidated income statement, the Company makes estimates of quantities of ore stacked in stockpiles, placed on the heap leach pad and in process and the recoverable silver in this material to determine the average costs of finished goods sold during the period. Changes in these estimates can result in a change in mine operating costs of future periods and carrying amounts of inventories. Refer to Note 9 for details.

- *Depreciation and amortization rates for mineral properties, plant and equipment and mineral interests:* Depreciation and amortization expenses are allocated based on assumed asset lives and depreciation and amortization rates. Should the asset life or depreciation rate differ from the initial estimate, an adjustment would be made in the consolidated income statement prospectively. A change in the mineral reserve estimate for assets depreciated using the units of production method would impact depreciation expense prospectively.

- *Impairment, or impairment reversal, of mining interests:* While assessing whether any indications of impairment, or impairment reversal, exist for mining interests, consideration is given to both external and internal sources of information. Information the Company considers include changes in the market, economic and legal environment in which the Company operates that are not within its control that affect the recoverable amount of mining interests. Internal sources of information include the manner in which mineral property, plant and equipment are being used or are expected to be used and indications of the economic performance of the assets. Estimates include but are not limited to estimates of the discounted future after-tax cash flows expected to be derived from the Company's mining properties, costs to sell the mining properties and the appropriate discount rate. Changes in metal price forecasts, increases or decreases in estimated future costs of production, increases or decreases in estimated future capital costs, reductions or increases in the amount of recoverable mineral reserves and mineral resources and/or adverse or favorable current economics can result in a write-down or write-up of the carrying amounts of the Company's mining interests. Impairments and impairment reversals of mining interests are discussed in Note 11.

- *Estimation of decommissioning and reclamation costs and the timing of expenditures:* The cost estimates are updated annually during the life of a mine to reflect known developments, (e.g. revisions to cost estimates and to the estimated lives of operations), and are subject to review at regular intervals. Decommissioning, restoration and similar liabilities are estimated based on the Company's interpretation of current regulatory requirements, constructive obligations and are measured at the best estimate of expenditures required to settle the present obligation of decommissioning, restoration or similar liabilities that may occur upon decommissioning of the mine at the end of its productive life. The carrying amount is determined based on the net present value of estimated future cash expenditures for the settlement of decommissioning, restoration or similar liabilities that may occur upon decommissioning of the mine. Such estimates are subject to change based on changes in laws and regulations and negotiations with regulatory authorities. Refer to Note 16 for details on decommissioning and restoration costs.

- *Income taxes and recoverability of deferred tax assets:* 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, the Company gives 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. The Company considers 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. The Company reassesses unrecognized income tax assets at each reporting period.

- *Accounting for acquisitions:* The provisional fair value of assets acquired and liabilities assumed and the resulting goodwill, if any, requires that management make certain judgments and estimates taking into account information available at the time of acquisition about future events, including, but not restricted to, estimates of mineral reserves and resources acquired, exploration potential, future operating costs and capital expenditures, future metal prices, long-term foreign exchange rates and discount rates. Changes to the provisional values of assets acquired and liabilities assumed, deferred income taxes and resulting goodwill, if any, are retrospectively adjusted when the final measurements are determined if related to conditions existing at the date of acquisition (within one year of the acquisition date).

- *Contingencies:* Due to the size, complexity and nature of the Company's operations, various legal and tax matters are outstanding from time to time. In the event the Company's estimates of the future resolution of these matters change, the Company will recognize the effects of the changes in its consolidated financial statements on the date such changes occur. Refer to Note 29 for further discussion on contingencies.

6. Management of Capital

The Company's objective when managing its capital is to maintain its ability to continue as a going concern while at the same time maximizing the growth of its business and providing returns to its shareholders. The Company's capital structure consists of shareholders' equity (comprising issued capital plus share option reserve plus deficit, plus investment revaluation reserve) with a balance of $1.4 billion as at December 31, 2016 (2015 - $1.3 billion). The Company manages its capital structure and makes adjustments based on changes to its economic environment and the risk characteristics of the Company's assets. The Company's capital requirements are effectively managed based on the Company having a thorough reporting, planning and forecasting process to help identify the funds required to ensure the Company is able to meet its operating and growth objectives.

The Company is not subject to externally imposed capital requirements and the Company's overall strategy with respect to capital risk management remains unchanged from the year ended December 31, 2015. Refer to Note 18 for details of the Company's revolving credit facility and related covenants.

7. Financial Instruments

a) Financial assets and liabilities classified as at fair value through profit or loss ("FVTPL")

The Company's financial assets and liabilities classified as at FVTPL are as follows:

	December 31, 2016	December 31, 2015
Current derivative liabilities		
Zinc contracts	**$ 1,769**	$ —
Lead Contracts	**54**	—
Foreign currency contracts	**992**	168
Diesel fuel swaps	**—**	2,667
	$ 2,815	$ 2,835

In addition, trade and other receivables include accounts receivable arising from sales of metal concentrates and have been designated and classified as at FVTPL. The total trade and other receivables are as follows:

	December 31, 2016	December 31, 2015
Trade receivables from provisional concentrates sales	**$ 44,960**	$ 21,272
Not arising from sale of metal concentrates[1]	**85,157**	65,769
Trade and other receivables	**$ 130,117**	$ 87,041

[1] Accounted for at amortized cost.

The net (losses) gains on derivatives for the years ended December 31, 2016 and 2015 were comprised of the following:

	2016	2015
(Losses) gains on commodity and diesel fuel swap and foreign currency contracts:		
Realized (losses) gains on foreign currency, diesel fuel swap and commodity contracts	**$ (4,965)**	$ 2,511
Unrealized gains (losses) on foreign currency, diesel fuel swap and commodity contracts	**21**	(2,835)
	$ (4,944)	$ (324)
Gain on derivatives:		
Gain on conversion feature of convertible notes	**—**	278
	$ —	$ 278

b) Normal purchase or sale exemption

Contracts that were entered into and continue to be held for the purpose of the receipt or delivery of a nonfinancial item in accordance with the Company's expected purchase, sale or usage requirements fall in the exemption from IAS 32 and IAS 39, which is known as the "normal purchase or sale exemption". These contracts and the host part of the contracts containing embedded derivatives are accounted for as executory contracts. The Company recognizes such contracts in its statement of financial position only when one of the parties meets its obligation under the contract to deliver either cash or a non-financial asset.

c) Financial assets designated as available-for-sale

The Company's short-term investments are designated as available-for-sale. The unrealized gains (losses) on available-for-sale investments recognized in other comprehensive income (loss) for the years ended December 31, were as follows:

	Twelve months ended December 31,	
	2016	2015
Unrealized net gains (losses) on available for sale securities	**$ 912**	$ (1,459)
Reclassification adjustment for realized (gains) losses on equity securities included in earnings	**(20)**	1,486
	$ 892	$ 27

d) Risk

Overview

The Company has exposure to risks of varying degrees of significance which could affect its ability to achieve its strategic objectives for growth and shareholder returns. The principle financial risks to which the Company is exposed are metal price risk, credit risk, interest rate risk, foreign exchange rate risk, and liquidity risk. The Company's Board of Directors has overall responsibility for the establishment and oversight of the Company's risk management framework and reviews the Company's policies on an ongoing basis.

Metal Price Risk

Metal price risk is the risk that changes in metal prices will affect the Company's income or the value of its related financial instruments. The Company derives its revenue from the sale of silver, gold, lead, copper, and zinc. The Company's sales are directly dependent on metal prices that have shown significant volatility and are beyond the Company's control. Consistent with the Company's mission to provide equity investors with exposure to changes in silver prices, the Company's current policy is to not hedge the price of silver. A 10% increase in all metal prices for the year ended December 31, 2016, would result in an increase of approximately $82.7 million (2015 – $72.8 million) in the Company's revenues. A 10% decrease in all metal prices for the same period would result in a decrease of approximately $85.0 million (2015 - $76.5 million) in the Company's revenues. The Company also enters into provisional concentrate contracts to sell the zinc, lead and copper concentrates produced by the Huaron, Morococha, San Vicente and La Colorada mines. A 10% increase in metal prices (zinc, lead, copper and silver) on open positions for provisional concentrate contracts for the year ended December 31, 2016 would result in an increase of approximately $4.7 million (2015 - $6.2 million) in the Company's before tax earnings which would be reflected in 2016 results. A 10% decrease in metal prices for the same period would result in a decrease of approximately $4.7 million (2015 - $6.2 million) in the Company's before tax earnings.

The Company mitigates the price risk associated with its base metal production by committing some of its forecasted base metal production from time to time under forward sales and option contracts. The Board of Directors continually assesses the Company's strategy towards its base metal exposure, depending on market conditions. At December 31, 2016, the Company had outstanding contracts to sell some of its base metals production.

Credit Risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations and arises principally from the Company's trade receivables. The carrying value of financial assets represents the maximum credit exposure.

The Company has long-term concentrate contracts to sell the zinc, lead and copper concentrates produced by the Huaron, Morococha, San Vicente and La Colorada mines. Concentrate contracts are common business practice in the mining industry. The terms of the concentrate contracts may require the Company to deliver concentrate that has a value greater than the payment received at the time of delivery, thereby introducing the Company to credit risk of the buyers of concentrates. Should any of these counterparties not honor supply arrangements, or should any of them become insolvent, the Company may incur losses for products already shipped and be forced to sell its concentrates on the spot market or it may not have a market for its concentrates and therefore its future operating results may be materially adversely impacted. At December 31, 2016 the Company had receivable balances associated with buyers of its concentrates of $45.0 million (2015 - $21.3 million). The vast majority of the Company's concentrate is sold to seven well-known concentrate buyers.

Silver doré production from La Colorada, Alamo Dorado, Dolores and Manantial Espejo is refined under long term agreements with fixed refining terms at three separate refineries worldwide. The Company generally retains the risk and title to the precious metals throughout the process of refining and therefore is exposed to the risk that the refineries will not be able to perform in accordance with the refining contract and that the Company may not be able to fully recover precious metals in such circumstances. At December 31, 2016 the Company had approximately $28.5 million (2015 - $21.4 million) of value contained in precious metal inventory at refineries. The Company maintains insurance coverage against the loss of precious metals at the Company's mine sites, in-transit to refineries and whilst at the refineries.

The Company maintains trading facilities with several banks and bullion dealers for the purposes of transacting the Company's trading activities. None of these facilities are subject to margin arrangements. The Company's trading activities can expose the Company to the credit risk of its counterparties to the extent that our trading positions have a positive mark-to-market value. However, the Company minimizes this risk by ensuring there is no excessive concentration of credit risk with any single counterparty, by active credit management and monitoring.

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

Supplier advances for products and services yet to be provided are a common practice in some jurisdictions in which the Company operates. These advances represent a credit risk to the Company to the extent that suppliers do not deliver products or perform services as expected. As at December 31, 2016, the Company had made $28.8 million (2015 - $12.5 million) of supplier advances, which are reflected in "Trade and other receivables" on the Company's balance sheet.

Management constantly monitors and assesses the credit risk resulting from its refining arrangements, concentrate sales and commodity contracts with its refiners, trading counterparties and customers. 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.

At December 31, 2016, the Company has recorded an allowance for doubtful accounts provision in the amount of $7.6 million (2015 – $7.6 million). $7.6 million relates to amounts owing from Doe Run Peru ("DRP") (2015 – $7.6 million), one of the buyers of concentrates from the Company's Peruvian operations, for deliveries of concentrates that occurred in early 2009. The Company will continue to pursue every possible avenue to recover the amounts owed by DRP. At December 31, 2016, no additional provisions for doubtful accounts were recorded.

Cash and cash equivalents, trade accounts receivable and other receivables that represent the maximum credit risk to the Company consist of the following:

	December 31,	
	2016	2015
Cash and cash equivalents	**$ 180,881**	$ 133,963
Short-term investments	**36,729**	92,678
Trade accounts receivable[1]	**44,960**	21,272
Insurance receivable[1]	**—**	3,713
Royalty receivable[1]	**20**	61
Employee loans[1]	**1,048**	1,140

[1] Included in Trade and other receivables.

The Company invests its cash and cash equivalents which also has credit risk with the objective of maintaining safety of principal and providing adequate liquidity to meet all current payment obligations.

Interest Rate Risk

Interest rate risk is the risk that the fair values and future cash flows of the Company will fluctuate because of changes in market interest rates. At December 31, 2016, the Company has $7.1 million in lease obligations (2015 - $4.0 million), that are subject to an annualized interest rate of 2.2% and an amount drawn on the credit facility of $36.2 million (2015 - $36.2 million) at an annual interest rate of 2.125% to 3.125% over LIBOR. The interest paid by the Company for the year ended December 31, 2016 on its lease obligations was $0.1 million (2015 – $0.4 million). The Company has repaid all short term loans in Argentina during the year ended December 31, 2016 (2015 - the Company had received short term loans in Argentina totaling $5.3 million Argentinean Pesos (USD $0.6 million) at an annual interest rate of 40%, USD $12.3 million at an annual interest rate of 4% and the Company had drawn on an available line of credit in Argentina for $89.1 million Argentinean Pesos (USD $6.7 million) at an interest rate of

30.0%). The interest paid by the Company for the year ended December 31, 2016 on the credit facility was $1.0 million (2015 – $nil). The interest paid by the Company for the year ended December 31, 2016 on the convertible notes was $nil (2015 – $1.6 million).

The average interest rate earned by the Company during the year ended December 31, 2016 on its cash and short-term investments was 0.3% (2015 - 0.88%). A 10% increase or decrease in the interest earned from financial institutions on cash and short-term investments would result in a $0.1 million increase or decrease in the Company's before tax earnings (2015 – $0.2 million).

Foreign Exchange Rate Risk

The Company reports its financial statements in USD; however, the Company operates in jurisdictions that utilize other currencies. As a consequence, the financial results of the Company's operations as reported in USD are subject to changes in the value of the USD relative to local currencies. Since the Company's sales are denominated in USD and a portion of the Company's operating costs and capital spending are in local currencies, the Company is negatively impacted by strengthening local currencies relative to the USD and positively impacted by the inverse.

In order to mitigate this exposure, from time to time the Company has purchased Peruvian Nuevo Sol ("PEN"), Mexican Peso ("MXN") and Canadian Dollar ("CAD") to match anticipated spending. At December 31, 2016 and December 31, 2015, the Company had no outstanding contracts to purchase CAD or PEN. During the year ended December 31, 2016 the Company entered into collared positions for its foreign currency exposure of MXN purchases with puts and call contracts which have a nominal value of $81.0 million and have settlement dates between January 2017 and December, 2017. The positions have a weighted average floor of $19.36 and average cap of $22.91. The Company recorded losses of $1.5 million on MXN forward contracts in the year ended December 31, 2016 (2015 - losses of $0.2 million).

The Company's net earnings are affected by the revaluation of its monetary assets and monetary liabilities at each balance sheet date. The Company has reviewed its monetary assets and monetary liabilities and is exposed to foreign exchange risk through financial assets and liabilities and deferred income tax liabilities denominated in currencies other than USD as shown in the table below. The Company estimates that a 10% change in the exchange rate of the foreign currencies in which its December 31, 2016 non-USD net monetary liabilities were denominated would result in an income before taxes change of about $19.2 million (2015 - $12.7 million).

The Company is exposed to currency risk through the following financial assets and liabilities, and deferred income tax assets and liabilities denominated in foreign currencies:

At December 31, 2016	Cash and short-term investments	Other current and non-current assets	Income taxes receivable (payable), current and non-current	Accounts payable and accrued liabilities and non-current liabilities	Deferred tax assets and liabilities
Canadian Dollar	$ 6,513	$ 338	$ (45)	$ (142)	$ (356)
Mexican Peso	9,416	29,079	5,884	(45,388)	(150,394)
Argentinian Peso	3,485	24,062	367	(27,245)	—
Bolivian Boliviano	4,329	184	(3,365)	(13,476)	(8,464)
European Euro	37	—	(262)	—	(53)
Peruvian Nuevo Sol	817	2,158	(11,031)	(8,913)	(9,867)
	$ 24,597	**$ 55,821**	**$ (8,452)**	**$ (95,164)**	**$ (169,134)**

At December 31, 2015	Cash and short-term investments	Other current and non-current assets	Income taxes receivable (payable), current and non-current	Accounts payable and accrued liabilities and non-current liabilities	Deferred tax assets and liabilities
Canadian Dollar	$ 12,999	$ 229	$ —	$ (549)	$ (238)
Mexican Peso	9,202	29,309	7,074	(34,000)	(124,375)
Argentinian Peso	46	25,961	2,294	(38,817)	—
Bolivian Boliviano	1,334	10,077	(556)	(13,171)	(4,144)
European Euro	8	—	(373)	(19)	(183)
Peruvian Nuevo Sol	1,692	2,158	5,454	(8,913)	(9,457)
	$ 25,281	**$ 67,734**	**$ 13,893**	**$ (95,469)**	**$ (138,397)**

Liquidity Risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they come due. The Company manages its liquidity risk by continuously monitoring forecasted and actual cash flows. The Company has in place a rigorous planning and budgeting process to help determine the funds required to support the Company's normal operating requirements on an ongoing basis and its expansion plans. The Company strives to maintain sufficient liquidity to meet its short-term business requirements, taking into account its anticipated cash flows from operations, its holdings of cash and short-term investments, and its committed loan facilities.

e) Contractual Maturities

In the normal course of business, the Company enters into contracts that give rise to commitments for future minimum payments. The following table summarizes the remaining contractual maturities of the Company's financial and non-financial liabilities, shown in contractual undiscounted cashflow:

	Payments due by period 2016				
	Total	**Within 1 year[(1)]**	**2 - 3 years**	**4- 5 years**	**After 5 years**
Current liabilities	$ 141,002	$ 141,002	$ —	$ —	$ —
Credit Facility	38,440	960	1,280	36,200	—
Finance lease obligations[(2)]	7,321	3,720	3,601	—	—
Severance accrual	3,986	689	658	365	2,274
Employee compensation[(3)]	6,918	3,996	2,922	—	—
Loss on commodity contracts	2,815	2,815	—	—	—
Provisions[(4)]	4,719	3,262	562	629	266
Income taxes payable	25,911	25,911	—	—	—
Total contractual obligations[(4)]	**$ 231,112**	**$ 182,355**	**$ 9,023**	**$ 37,194**	**$ 2,540**

Payments due by period 2015

	Total	Within 1 year[1]	2 - 3 years	4- 5 years	After 5 years
Current liabilities	$ 111,700	$ 111,700	$ —	$ —	$ —
Credit Facility	39,400	960	1,920	36,520	—
Loan obligation (Note 15)	19,680	19,680	—	—	—
Finance lease obligations[2]	4,124	2,319	1,805	—	—
Severance accrual	3,811	720	1,444	975	672
Employee compensation[3]	3,178	1,707	1,471	—	—
Loss on commodity contracts	2,835	2,835	—	—	—
Provisions[4]	4,419	2,962	405	733	319
Income taxes payable	13,481	13,481	—	—	—
Total contractual obligations[4]	**$ 202,628**	**$ 156,364**	**$ 7,045**	**$ 38,228**	**$ 991**

[1] Includes all current liabilities in the consolidated statement of financial position at December 31, 2016 and December 31, 2015 plus items presented separately in this table that are expected to be paid but not accrued in the books of the Company. A reconciliation of the current liabilities balance in the statement of financial position to the total contractual obligations within one year, per the contractual maturities schedule is shown in the table below.

December 31, 2016		**Future interest component**	**Within 1 year**
Current portion of:			
Accounts payable and other liabilities	$ 141,002	$ —	**$ 141,002**
Credit facility	—	960	**960**
Current portion of finance lease	3,559	161	**3,720**
Current severance liability	689	—	**689**
Employee Compensation & RSU's	1,812	2,184	**3,996**
Unrealized loss on commodity contracts	2,815	—	**2,815**
Provisions[4]	3,262	—	**3,262**
Income tax payable	25,911	—	**25,911**
Total contractual obligations within one year[4]	$ 179,050	$ 3,305	**$ 182,355**

December 31, 2015		**Future interest component**	**Within 1 year**
Current portion of:			
Accounts payable and other liabilities	$ 111,700	$ —	**$ 111,700**
Credit facility	—	960	**960**
Loan obligation	19,578	102	**19,680**
Current portion of finance lease	2,238	81	**2,319**
Current severance liability	720	—	**720**
Employee Compensation & RSU's	409	1,298	**1,707**
Unrealized loss on commodity contracts	2,835	—	**2,835**
Provisions[4]	2,962	—	**2,962**
Income tax payable	13,481	—	**13,481**
Total contractual obligations within one year[4]	$ 153,923	$ 2,441	**$ 156,364**

[2] Includes lease obligations in the amount of $7.3 million (December 31, 2015 - $4.1 million) with a net present value of $7.1 million (December 31, 2015 - $4.0 million) discussed further in Note 17.

[3] Includes RSU obligation in the amount of $4.8 million (2015 – $2.5 million) that will be settled in cash. The RSUs vest in two instalments, 50% in December 2016 and 50% in December 2017.

[4] Amounts above do not include payments related to the Company's anticipated closure and decommissioning obligation (current of $5.2 million, long-term $50.4 million) discussed in Note 16 (2015 - current $6.0 million , long-term $44.5 million), the deferred credit arising from the Aquiline acquisition ($20.8 million) (2015 - $20.8 million) discussed in Note 19, and deferred tax liabilities of $170.9 million discussed in Note 28 (2015 - $142.1 million).

Fair Value of Financial Instruments

The carrying value of the conversion feature on the Minefinders Notes was stated at fair value and the carrying value of cash and cash equivalents, short-term investments, trade and other receivables, accounts payable and accrued liabilities approximate their fair value due to the relatively short periods to maturity of these financial instruments.

Fair value estimates are made at a specific point in time, based on relevant market information and information about the financial instrument. These estimates are subjective in nature and involve uncertainties and matters of significant judgement and, therefore, cannot be determined with precision. Changes in assumptions could significantly affect the estimates.

The following table sets forth the Company's financial assets and liabilities measured at fair value, grouped into Levels 1 to 3 based on the degree to which the fair value is observable. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurement) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are described as follows:

Level 1: Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;

Level 2: Quoted prices in markets that are not active, or inputs that are observable, either directly or indirectly, for substantially the full term of the asset or liability; and

Level 3: Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (supported by little or no observable market data).

At December 31, 2016 and 2015, the levels in the fair value hierarchy into which the Company's financial assets and liabilities are measured and recognized on the Consolidated Statements of Financial Position at fair value are categorized as follows:

	Fair Value at December 31, 2016			
	Total	Level 1	Level 2	Level 3
Assets and Liabilities:				
Short-term investments	$ 36,729	$ 36,729	$ —	$ —
Trade receivables from provisional concentrate sales	44,960	—	44,960	—
Zinc contracts	(1,769)	—	(1,769)	—
Lead contracts	(54)	—	(54)	—
Foreign currency contracts	(992)	—	(992)	—
	$ 78,874	**$ 36,729**	**$ 42,145**	**$ —**

	Fair Value at December 31, 2015			
	Total	Level 1	Level 2	Level 3
Assets and Liabilities:				
Short-term investments	$ 92,678	$ 92,678	$ —	$ —
Trade receivables from provisional concentrate sales	21,272	—	21,272	—
Foreign currency contracts	(168)	—	(168)	—
Diesel swap contracts	(2,667)	—	(2,667)	—
	$ 111,115	**$ 92,678**	**$ 18,437**	**$ —**

The methodology and assessment of inputs for determining the fair value of financial assets and liabilities as well as the levels of hierarchy for the Company's financial assets and liabilities measured at fair value remains unchanged from that at December 31, 2015.

Valuation Techniques

Short-term investments and other investments

The Company's short-term investments and other investments are valued using quoted market prices in active markets and as such are classified within Level 1 of the fair value hierarchy and are primarily money market securities and U.S. Treasury securities. The fair value of the investment securities is calculated as the quoted market price of the investment and in the case of equity securities, the quoted market price multiplied by the quantity of shares held by the Company.

Derivative Financial Instruments

The Company's commodity swaps, diesel fuel swaps and foreign currency contracts are valued using observable market prices and as such are classified as Level 2 of the fair value hierarchy. As of December 31, 2016, the unrealized losses on foreign currency, diesel fuel swap and commodity contracts was $2.8 million (2015 - losses of $2.8 million).

During the year ended December 31, 2016 the Company entered into collared positions for its foreign currency exposure of MXN purchases with puts and call contracts (Note 7d, Foreign Exchange Rate Risk).

During the year ended December 31, 2015, the Company entered into diesel swap contracts designated to fix or limit the Company's exposure to higher fuel prices (the "Diesel fuel swaps"). The Diesel fuel swaps had an initial notional value of $25.5 million of which $nil remained outstanding as at December 31, 2016 (December 31, 2015 - $14.7 million). The Company recorded gains of $1.0 million on the Diesel fuel swaps in the year ended December 31, 2016 (2015 - losses of $3.1 million).

During the year ended December 31, 2015 the Company entered into copper swap contracts designated to fix or limit the Company's exposure to lower copper prices (the "Copper swaps"). The copper swaps were on 4,080 metric tonnes ("MT") of copper at an average price of $6,044 USD/MT. The Company did not enter into any copper swap contracts during the year ended December 31, 2016. The Company recorded gains of $3.0 million on the copper contracts in the year ended December 31, 2015. There were no copper swap contracts outstanding as at December 31, 2016 or December 31, 2015.

During the year ended December 31, 2016, in order to limit its exposure to lower zinc prices on a portion of its zinc production, the Company used put and call contracts to collar the prices on 22,115 tonnes of zinc, of which only contracts for 10,265 tonnes of zinc remained outstanding at December 31, 2016. The outstanding contracts have a weighted average floor and cap of $2,043 and $2,887, respectively. The remaining contracts have settlement dates between January 2017 and December 2017. The Company recorded losses of $4.3 million on zinc positions during the year ended December 31, 2016.

Further, during the year ended December 31, 2016, in order to limit its exposure to lower lead prices on a portion of its lead production, the Company used put and call contracts to collar the prices on 3,720 tonnes of lead, of which only contracts for 620 tonnes remained outstanding at December 31, 2016. The outstanding contracts have a fixed minimum price of $1,650 and a maximum price of $1,965 per tonne. These remaining contracts have settlement dates between January 2017 and February 2017. The Company recorded losses of $0.2 million on the lead positions during the year ended December 31, 2016.

Convertible notes

The Company's unrealized gains and losses on the conversion feature of the Minefinders Notes were valued using observable inputs and as such were classified as Level 2 of the fair market value hierarchy. The conversion feature on the Minefinders Notes was considered an embedded derivative and previously re-measured at fair value each reporting period. The fair value of the conversion feature of the convertible notes was determined using a model that included the volatility and price of the Company's common shares and a credit spread structure with reference to the corresponding fair value of the debt component of the convertible notes. The notes were settled in December 2015 along with all accrued interest.

Receivables from Provisional Concentrate Sales

A portion of the Company's trade receivables arose from provisional concentrate sales and are valued using quoted market prices based on the forward London Metal Exchange ("LME") for copper, zinc and lead and the London Bullion Market Association P.M. fix ("London P.M. fix") for gold and silver.

8. Short-Term Investments

	December 31, 2016			December 31, 2015		
Available for Sale	**Fair Value**	**Cost**	**Accumulated unrealized holding gains**	Fair Value	Cost	Accumulated unrealized holding losses
Short-term investments	**$ 36,729**	**$ 36,295**	**$ 434**	$ 92,678	$ 93,136	$ (458)

9. Inventories

Inventories consist of:

		December 31, 2016		December 31, 2015
Concentrate inventory	**$**	**12,891**	$	17,216
Stockpile ore [1]		**31,964**		18,988
Heap leach inventory and in process [2]		**109,705**		82,846
Doré and finished inventory [3]		**36,864**		33,981
Materials and supplies		**45,905**		51,330
	$	**237,329**	$	204,361

[1] Includes an impairment charge of $6.0 million to reduce the cost of inventory to NRV at Manantial Espejo and Dolores mines (December 31, 2015 – $28.8 million at Manantial Espejo, Dolores and Alamo Dorado mines).

[2] Includes an impairment charge of $1.5 million to reduce the cost of inventory to NRV at Manantial Espejo mine (December 31, 2015 - $21.3 million at Manantial Espejo and Dolores mines).

[3] Includes an impairment charge of $3.4 million to reduce the cost of inventory to NRV at Manantial Espejo and Alamo Dorado mines (December 31, 2015 - $3.7 million at Manantial Espejo and Dolores mines).

Production costs, including depreciation and amortization, and royalties for the year ended December 31, 2016 were $575.9 million (2015 - $706.8 million). Production costs represent cost of inventories sold during the year. During 2016, a $42.8 million (2015 - $10.9 million net realizable value loss) net realizable value recovery was recognized, primarily driven by increased metal prices, and included in production costs (Note 21). Inventories held at net realizable value amounted to $48.2 million (2015 – $119.0 million). A portion of the Stockpile ore amounting to $18.4 million (2015 – $4.5 million) and a portion of the heap leach inventory amounting to $65.2 million (2015 - $57.6 million) are expected to be recovered or settled after more than twelve months.

10. Mineral Properties, Plant and Equipment

Acquisition costs of investment and non-producing properties together with costs directly related to mine development expenditures are capitalized. Exploration expenditures on investment and non-producing properties are charged to expense in the period they are incurred.

Capitalization of evaluation expenditures commences when there is a high degree of confidence in the project's viability and hence it is probable that future economic benefits will flow to the Company. Evaluation expenditures, other than that acquired from the purchase of another mining company, are carried forward as an asset provided that such costs are expected to be recovered in full through successful development and exploration of the area of interest or alternatively, by its sale. Evaluation expenditures include delineation drilling, metallurgical evaluations, and geotechnical evaluations amongst others.

Mineral properties, plant and equipment consist of:

	Mining Properties				
	Depletable	**Non-depletable**			
	Reserves and Resources	**Reserves and Resources**	**Exploration and Evaluation**	**Plant and Equipment**	**Total**
Carrying value					
As at January 1, 2016					
Net of accumulated depreciation	$ 620,035	$ 120,351	$ 276,307	$ 128,528	$ 1,145,221
Additions	88,331	—	—	112,506	200,837
Disposals	—	—	—	(1,208)	(1,208)
Depreciation and amortization	(34,803)	—	—	(81,152)	(115,955)
Depreciation charge captured in inventory	(9,675)	—	—	—	(9,675)
Transfers	21,976	(61,773)	(16,354)	51,021	(5,130)
Closure and decommissioning – changes in estimate	8,637	—	—	—	8,637
As at December 31, 2016	**$ 694,501**	**$ 58,578**	**$ 259,953**	**$ 209,695**	**$ 1,222,727**
Cost as at December 31, 2016	$ 1,916,954	$ 70,675	$ 661,357	$ 820,687	$ 3,469,673
Accumulated depreciation and impairments	**(1,222,453)**	**(12,097)**	**(401,404)**	**(610,992)**	**(2,246,946)**
Carrying value – December 31, 2016	**$ 694,501**	**$ 58,578**	**$ 259,953**	**$ 209,695**	**$ 1,222,727**

	Mining Properties				
	Depletable	**Non-depletable**			
	Reserves and Resources	**Reserves and Resources**	**Exploration and Evaluation**	**Plant and Equipment**	**Total**
Carrying value					
As at January 1, 2015					
Net of accumulated depreciation	$ 646,374	$ 129,944	$ 281,401	$ 208,672	$ 1,266,391
Additions	114,092	—	—	42,461	156,553
Disposals	—	—	—	(255)	(255)
Depreciation and amortization	(69,479)	—	—	(81,366)	(150,845)
Depreciation charge captured in inventory	15,661	—	—	—	15,661
Impairment charges	(90,431)	(14,571)	—	(45,266)	(150,268)
Transfers	(5,249)	4,978	(5,094)	4,282	(1,083)
Capitalized borrowing costs	1,994	—	—	—	1,994
Closure and decommissioning – changes in estimate	7,073	—	—	—	7,073
As at December 31, 2015	**$ 620,035**	**$ 120,351**	**$ 276,307**	**$ 128,528**	**$ 1,145,221**
Cost as at December 31, 2015	$ 1,502,411	$ 341,331	$ 677,846	$ 720,786	$ 3,242,374
Accumulated depreciation and impairments	**(882,376)**	**(220,980)**	**(401,539)**	**(592,258)**	**(2,097,153)**
Carrying value – December 31, 2015	**$ 620,035**	**$ 120,351**	**$ 276,307**	**$ 128,528**	**$ 1,145,221**

	December 31, 2016			December 31, 2015		
	Cost	**Accumulated Depreciation and Impairment**	**Carrying Value**	Cost	Accumulated Depreciation and Impairment	Carrying Value
Huaron mine, Peru	**$ 185,850**	**$ (95,195)**	**$ 90,655**	$ 171,574	$ (82,896)	$ 88,678
Morococha mine, Peru	**222,517**	**(183,289)**	**39,228**	214,855	(177,621)	37,234
Alamo Dorado mine, Mexico	**197,199**	**(197,199)**	**—**	198,950	(198,950)	—
La Colorada mine, Mexico	**262,516**	**(81,888)**	**180,628**	200,083	(72,732)	127,351
Dolores mine, Mexico	**1,358,923**	**(837,478)**	**521,445**	921,169	(512,308)	408,861
Manantial Espejo mine, Argentina	**361,553**	**(347,855)**	**13,698**	360,735	(341,457)	19,278
San Vicente mine, Bolivia	**124,618**	**(74,251)**	**50,367**	130,595	(72,230)	58,365
Other	**24,465**	**(16,290)**	**8,175**	25,237	(16,441)	8,796
Total	**$ 2,737,641**	**$ (1,833,445)**	**$ 904,196**	$ 2,223,198	$ (1,474,635)	$ 748,563
Land and Exploration and Evaluation:						
Land	**$ 4,900**	**$ (1,462)**	**$ 3,438**	$ 4,977	$ (1,462)	$ 3,515
Navidad project, Argentina	**566,572**	**(376,101)**	**190,471**	566,572	(376,101)	190,471
Minefinders projects, Mexico	**112,029**	**(16,929)**	**95,100**	399,348	(225,947)	173,401
Morococha, Peru	**9,674**	**(6,436)**	**3,238**	9,674	(6,436)	3,238
Other	**38,857**	**(12,573)**	**26,284**	38,606	(12,573)	26,033
Total non-producing properties	**$ 732,032**	**$ (413,501)**	**$ 318,531**	$ 1,019,177	$ (622,519)	$ 396,658
Total mineral properties, plant and equipment	**$ 3,469,673**	**$ (2,246,946)**	**$ 1,222,727**	$ 3,242,375	$ (2,097,154)	$ 1,145,221

Project Development

Dolores Mine, Mexico

During the year ended December 31, 2016 the Company capitalized $106.6 million of mineral properties, plant and equipment (2015 - $53.1 million) which included deferred stripping costs of $18.5 million, pulp agglomeration construction costs of $40.5 million, underground development costs of $17.2 million, powerline construction costs of $6.8 million, and pad 3 construction additions of $1.6 million (2015 - deferred stripping costs of $18.1 million, powerline construction costs of $11.5 million and pad 3 construction additions of $2.2 million). For the year ended December 31, 2016, the Company capitalized $nil in interest related to the capital expenditures (2015 - $2.0 million at a 8.7% capitalization rate).

La Colorada, Mexico

During the year ended December 31, 2016 the Company capitalized $52.9 million of mineral properties, plant and equipment (2015 - $45.4 million) which included shaft construction costs of $19.3 million, sulfide plant construction costs of $12.8 million, underground development costs of $2.9 million, and powerline construction costs of $6.1 million. (2015 - shaft construction costs of $11.3 million, sulfide plant construction costs of $21.3 million, underground development of $2.4 million, and powerline construction costs of $2.6 million)

Disposals

On May 8, 2016, the Company recorded a gain on sale of assets of $18.3 million on the sale of a 75% interest in the shares of Shalipayco S.A.C. ("Shalipayco") for consideration of $15.0 million in cash and a one percent (1%) Net Smelter Returns Royalty (the "NSR") on the property, which was subsequently disposed, on July 11, 2016 (Note 12) for proceeds of $3.3 million. Shalipayco is the owner of the Shalipayco zinc development project located in the provinces of Pasco and Junin, Peru.

On July 11, 2016, the Company recorded a gain on sale of assets in the amount of $6.6 million ($0.6 million gain after taxes) as a result of the disposition of certain royalties, precious metals streams, and payment arrangements (Note 12).

11. Impairment of Non-Current Assets and Goodwill

Non-current assets are tested for impairment when events or changes in circumstance indicate that the carrying amount may not be recoverable, or previous impairment on assets are recoverable. The Company performs an impairment test for goodwill at each financial year end and when events or changes in circumstances indicate that the related carrying value may not be recoverable. The Company considers its internal discounted cash flow economic models as a proxy for the calculation of fair value less cost to sell, given a willing market participant would use such models in establishing a value for the properties. The Company considers impairment, or if previous impairment charges should be reversed, at the cash generating unit ("CGU") level, which is considered to be an individual mine or a development property. The CGU carrying amount for purposes of this test includes the carrying value of the mineral properties plant and equipment less deferred tax liabilities and closure and decommissioning liabilities related to each CGU.

The Company's key assumptions for determining the recoverable amounts of its various CGUs, for the purpose of testing for impairment or impairment reversals, include the most current operating and capital costs information and risk adjusted project specific discount rates. The Company uses an average of analysts' consensus prices for the first four years of its economic modeling, and long term reserve prices for the remainder of each asset's life. The prices used can be found in the key assumptions and sensitivity section below.

During the fourth quarter of 2016, management determined that changes in operating assumptions for the Dolores and Manatial Espejo mines, including but not limited to changes in year-end reserves and resources and mine-life estimates, when considered together with increases to the Company's reserve prices and to consensus prices, could be indicative of changes in the assets' recoverable amounts significant enough to warrant either reversals of previous impairment charges, or additional impairment charges. As a result, management estimated the recoverable amounts of these mines as at December 31, 2016, determined on a fair value less costs to sell basis, and concluded that the carrying values were supportable and that no impairment charges or reversals were required.

Impairment at December 31, 2015

The sustained decrease in metal prices, that was most pronounced during the second half of 2015, led to the Company lowering its long term reserve prices at year-end. The year-end reserve price reduction and observed declines in near-term and mid-term period consensus metal prices referenced in the Company's life of mine cash flow models, led management to conclude that there was an indication of impairment to certain assets in the third and fourth quarter of 2015. Based on the Company's estimation of the recoverable amounts of its mineral properties as at September 30, 2015 and December 31, 2015, determined on a fair value less costs to sell basis, the Company concluded that impairment charges were required during the year on the Dolores, Manantial Espejo, Morococha, and Alamo Dorado mines.

As at December 31, 2015, the Company determined the carrying value of the Dolores mine, including mineral properties, plant and equipment, and stockpile inventories, net of associated deferred tax liabilities and closure and decommissioning liabilities of $434.3 million (the "Net Carrying Amount"), was greater than its then estimated recoverable amount of $413.6 million when using a 5.25% risk adjusted discount rate. Based on the assessment at December 31, 2015, the Company recorded an impairment charge related to the Dolores mine of $31.7 million before tax ($20.7 million net of tax).

As at December 31, 2015, the Company determined that the $12.9 million Net Carrying Amount of the Alamo Dorado mine, was greater than its then estimated recoverable amount of $nil when using a 4.00% risk adjusted discount rate. Based on this assessment the Company wrote–off the carrying value of the Alamo Dorado mine's mineral properties, plant and equipment assets of $9.1 million before tax ($6.0 million net of tax).

As at December 31, 2015, the Company determined that the $112.4 million Net Carrying Amount of the Morococha mine, was greater than its then estimated recoverable amount of $36.3 million when using a 6.50% risk adjusted discount rate. Based on the assessment at December 31, 2015, the Company recorded an impairment charge related to the Morococha mine of $80.7 million before tax ($59.1 million net of tax).

As at September 30, 2015, the Company determined that the Net Carrying Amount of the Manantial Espejo mine of approximately $83.4 million was greater than its then estimated recoverable amount of $29.9 million, when using an 8.25% risk adjusted discount rate. Based on this assessment the Company recorded an impairment charge related to the Manantial Espejo mineral properties, plant and equipment of $28.8 million before tax ($20.2 million net of tax).

Key assumptions and sensitivity

The metal prices used to calculate the recoverable amounts at December 31, 2016, December 31, 2015, and September 30, 2015 are based on analyst consensus prices and the Company's long term reserve prices, and are summarized in the following tables:

Metal prices used at December 31, 2016:

Commodity Prices	**2017-2020 average**	**Long term**
Silver price - $/oz.	$19.93	$18.50
Gold price - $/oz.	$1,327	$1,300
Zinc price - $/tonne	$2,567	$2,200
Copper price - $/tonne	$5,725	$5,000
Lead price - $/tonne	$2,142	$2,000

Metal prices used at December 31, 2015:

Commodity Prices	**2016-2019 average**	**Long term**
Silver price - $/oz.	$16.87	$17.00
Gold price - $/oz.	$1,184	$1,180
Zinc price - $/tonne	$2,264	$1,800
Copper price - $/tonne	$5,690	$5,000
Lead price - $/tonne	$1,935	$1,800

Metal prices used at September 30, 2015:

Commodity Prices	**2015-2018 average**	**Long term**
Silver price - $/oz.	$16.98	$18.50
Gold price - $/oz.	$1,199	$1,250

In 2016, the discount rates used to present value the Company's life of mine cash flows were derived from the Company's weighted average cost of capital which was calculated as 6.4% (2015 – 6.4%), with rates applied to the various mines and projects ranging from 5.00% to 9.00% (2015 - 4.00% to 10.00%), depending on the Company's assessment of country risk, project risk, and other potential risks specific to each CGU.

The key assumptions in determining the recoverable value of the Company's mineral properties are individual metal prices, operating and capital costs, foreign exchange rates and discount rates. At December 31, 2016, the Company performed a sensitivity analysis on all key assumptions that assumed a modest (10%) adverse change to each individual assumption while holding the other assumptions constant.

At December 31, 2016, an adverse 10% movement in any of the major assumptions in isolation did not cause the recoverable amount to be below the CGU carrying value for any of La Colorada, Alamo Dorado, San Vicente, Huaron, Morococha, or the Navidad project. For the Manantial Espejo mine, which in 2015 had its carrying values adjusted to fair value less cost to sell through impairment charges, a modest increase in operating costs would reduce the recoverable amount below the carrying amount. In the case of the Dolores mine, which in 2015 had its carrying values adjusted to fair value less cost to sell through impairment charges, a modest adverse change in any one key assumption would reduce the recoverable amount below the carrying amount.

At December 31, 2015, an adverse 10% movement in any of the major assumptions in isolation did not cause the recoverable amount to be below the CGU carrying value for any of La Colorada, San Vicente and Huaron. In the case of the Dolores mine, the Alamo Dorado mine, the Manantial Espejo mine, the Morococha mine, and the Navidad project and certain non-core exploration properties, which all have had their carrying values adjusted to fair value less cost to sell through impairment charges, a modest adverse change in any one key assumption would reduce the recoverable amount below the carrying amount.

Goodwill

Goodwill arose when the Company acquired Minefinders in 2012 and consists of:

As at December 31, 2014	$	**3,057**
Impairments		—
As at December 31, 2015	$	**3,057**
Impairments		—
As at December 31, 2016	**$**	**3,057**

12. Investment in Associates

Investment in associates consist of:

		December 31, 2016		December 31, 2015
Investment in Maverix Metals Inc. ("Maverix")	**$**	**48,284**	$	—
Investment in other		**1,450**		1,450
	$	**49,734**	$	1,450

The following table shows a continuity of the Company's investment in Maverix:

		2016		2015
Acquisition cost of investment in associate, July 11, 2016	**$**	**29,371**	**$**	—
Dilution gain		10,979		—
Adjustment for change in ownership interest		10,967		—
Loss in associate		(3,033)		—
Balance of investment in associate, December 31, 2016	**$**	**48,284**	**$**	—

Investment in Maverix:

On July 11, 2016 Maverix (formerly, MacMillan Minerals Inc.) and the Company closed a plan of arrangement (the "Arrangement") pursuant to which Maverix acquired 13 royalties, precious metals streams and payment agreements (the "Portfolio") from the Company. The chair of the board of Maverix is the Company's former CEO and two of the Company's senior executives serve on the board of Maverix.

As part of the Arrangement, Pan American received 42,850,000 common shares (the "Shares") and 20,000,000 common share purchase warrants (the "Initial Warrants") in exchange for the Portfolio. The Initial Warrants are exercisable without restriction for five years, at the option of the Company with one-half exercisable at $0.546 per share and the other half exercisable at $0.78 per share. Following the close of the Arrangement, Maverix had a total of 79,837,856 issued and outstanding common shares, of which the Company held approximately 54 percent on a non-diluted basis.

As a result of the Company's limited board representation in Maverix and restricted influence over Maverix's operating, strategic and financing decisions, the Company concluded that it has significant influence over, but does not control Maverix. As such, the investment in Maverix is considered an Investment in Associate, accounted for using the equity method, whereby the Company will record its portion of Maverix's income or loss based on Pan American's ownership interest in Maverix. Maverix was initially recorded based on the fair value of the Company’s acquired interest, and the book value of the portion of the Portfolio retained through the Company's ownership in Maverix.

On December 23, 2016, Maverix closed a transaction with Gold Fields Netherlands Services BV (a wholly owned subsidiary of Gold Fields Limited) and certain of its affiliates (collectively “Gold Fields”), where Maverix acquired a portfolio of eleven (11) royalties from Gold Fields (the “GFI Royalty Portfolio”); and Maverix issued to Gold Fields a total of 42.85 million common shares and 10 million common share purchase warrants. Concurrent with this, the Company exercised 10 million Initial Warrants having an exercise price of $0.546 (CDN$0.70) per Maverix common share for aggregate proceeds of $5.5 million paid to Maverix (the "Warrant Exercise"). The Warrant Exercise was carried out as part of an early warrant exercise incentive arrangement with the Company pursuant to which Maverix issued to the Company 6.5 million Maverix common share purchase warrants (the

"Inducement Warrants") with an exercise price of $1.204 (CDN$1.60) per common share of Maverix and expiring on July 8, 2021 (collectively, the "Gold Fields Transaction").

The Company also concluded that the Initial Warrants and the Inducement Warrants represent an in substance ownership interest in Maverix rather than a derivative financial asset and were thus a component of the Maverix Investment in Associate. A corresponding warrant liability of $11.7 million was initially recognized as the aggregate exercise price of the Initial Warrants discounted at 2.6%. The exercise of 10 million Initial Warrants triggered the de-recognition of $4.8 million in warrant liability and a further $7.0 million in warrant liablity was recorded for the Inducement Warrants (calculated as the aggregate exercise price discounted at 2.6%). Based on this treatment, the Company's share of Maverix income or loss was recorded, from July 11, 2016 to December 23, 2016, based on its 63% interest and 43% for the period of December 24, 2016 to December 31, 2016, representing the Company’s fully diluted ownership. As at December 31, 2016, the warrant liability was $13.8 million.

Deferred Revenue:

Included in the Portfolio are precious metal streams whereby the Company will sell 100% of the future gold production from La Colorada and 5% of the future gold production from La Bolsa, which is in the exploration stage, to Maverix for $650 and $450 per ounce, respectively (the "Streams").

A deferred revenue liability of $7.8 million was recognized on July 11, 2016 for the Streams and represents the fair value of the differential between the fixed contracted gold prices in the streams, and the assumed future market gold prices included in the underlying La Colorada and La Bolsa mine models. The liability recognized by the Company is the portion of the deferred revenue to be paid to Maverix owners other than Pan American through its ownership in Maverix. On December 23, 2016, the Company recorded an additional $4.0 million of deferred revenue as a result of the diluted ownership in Maverix that arose on the Gold Fields Transaction. The deferred revenue related to the Streams will be recognized as revenue by Pan American as the gold ounces are delivered to Maverix. As at December 31, 2016, the deferred revenue liability was $11.6 million.

During the 173 days ended December 31, 2016, $0.2 million of revenue was recognized for the delivery of 604 ounces of gold from La Colorada to Maverix. All transactions with Maverix were in normal course and measured at exchange amounts, which were the amounts of consideration established and agreed to by the Company and Maverix.

Income Statement Impacts:

The initial transaction on July 11, 2016 resulted in the recognition of an initial gain on the sale of assets in the amount of $6.6 million ($0.6 million gain after taxes).

The Gold Fields Transaction resulted in a $11.0 million dilution gain recorded in share of loss from associate and dilution gain comprised of $23.0 million gain recorded for the proportionate increase in assets acquired offset by a $8.1 million loss recorded for the dilution of ownership in Maverix and a $3.9 million loss recorded as a result of the Inducement Warrants in Maverix.

The Company also recognized a share of loss from associate of $3.0 million recorded in share of loss from associate and dilution gain which represents the Company's 63% share of Maverix's loss from the date of acquisition of interest in Maverix until the Gold Fields Transaction and 43% for the remaining period ended December 31, 2016.

13. Other Assets

Other assets consist of:

	December 31, 2016	December 31, 2015
Reclamation bonds	**$ 199**	$ 199
Lease receivable	**91**	185
Other assets	**89**	37
	$ 379	$ 421

14. Accounts Payable and Accrued Liabilities

Accounts payable and accrued liabilities consist of:

	December 31, 2016	December 31, 2015
Trade accounts payable[1]	**$ 45,344**	$ 53,570
Royalties payable	**4,612**	1,947
Other accounts payable and trade related accruals	**48,767**	28,796
Payroll and related benefits	**24,971**	17,366
Severance accruals	**688**	720
Other taxes payable	**1,791**	1,220
Advances on concentrate inventory	**33**	—
Other	**17,296**	9,210
	$ 143,502	$ 112,829

[1] No interest is charged on the trade accounts payable ranging from 30 to 60 days from the invoice date. The Company has policies in place to ensure that all payables are paid within the credit terms.

15. Loans payable

	December 31, 2016	December 31, 2015
Loans payable	**$ —**	$ 19,578
Net loans payable[1]	**$ —**	$ 19,578

[1]

As at December 31, 2015

Due	**Argentine Peso**	**US$**	**Int. Rate**	**Total US$**
January 6, 2016	$ 5,291	$ —	40.00%	$ 406
January 15, 2016	89,065	—	30.00%	6,872
January 23, 2016	—	2,305	3.90%	2,305
January 29, 2016	—	300	5.30%	300
January 29, 2016	—	2,500	3.82%	2,500
February 28, 2016	—	3,195	4.25%	3,195
March 9, 2016	—	3,200	3.35%	3,200
March 9, 2016	—	800	3.85%	800
	$ 94,356	$ 12,300		$ 19,578

16. Provisions

	Closure and Decommissioning	Litigation	Total
December 31, 2014	$ 43,173	$ 5,011	$ 48,184
Revisions in estimates and obligations incurred	$ 6,859	—	6,859
Charged (credited) to earnings:			
-new provisions	—	125	125
-change in estimate	—	(86)	(86)
-exchange gains on provisions	—	(377)	(377)
Charged in the year	—	(255)	(255)
Reclamation expenditures	(2,818)	—	(2,818)
Accretion expense (Note 23)	3,239	—	3,239
December 31, 2015	$ 50,453	$ 4,418	$ 54,871
Revisions in estimates and obligations incurred	**6,875**	**—**	**6,875**
Charged (credited) to earnings:			
-new provisions	**—**	**347**	**347**
-change in estimate	**—**	**(104)**	**(104)**
-exchange gains on provisions	**—**	**(32)**	**(32)**
Charged in the year	**—**	**(297)**	**(297)**
Reclamation expenditures	**(6,080)**	**—**	**(6,080)**
Accretion expense (Note 23)	**4,363**	**—**	**4,363**
December 31, 2016	**$ 55,611**	**$ 4,332**	**$ 59,943**

Maturity analysis of total provisions:	**December 31, 2016**	December 31, 2015
Current	**$ 8,499**	$ 8,979
Non-Current	**51,444**	45,892
	$ 59,943	$ 54,871

Closure and Decommissioning Cost Provision

The total inflated and undiscounted amount of estimated cash flows required to settle the Company's estimated future closure and decommissioning costs is $122.1 million (2015 - $107.2 million) which has been inflated using inflation rates of between 1% and 23% (2015 – between 1% and 17%). The total provision for closure and decommissioning cost is calculated using discount rates of between 1% and 30% (2015 - between 1% and 20%). Revisions made to the reclamation obligations in 2016 were primarily a result of increased site disturbance at the mines as well as revisions to the estimate based on periodic reviews of closure plans, actual expenditures incurred and concurrent closure activities completed. These obligations will be funded from operating cash flows, reclamation deposits and cash on hand.

The accretion expense charged to 2016 earnings as finance expense was $4.4 million (2015 - $3.2 million). Reclamation expenditures paid during the current year were $6.1 million (2015 - $2.8 million).

Litigation Provision

The litigation provision consists of amounts accrued for labour claims at several of the Company's mine operations. The balance of $4.3 million at December 31, 2016 (2015 - $4.4 million) represents the Company's best estimate for all known and anticipated future obligations related to the above claims. The amount and timing of any expected payments are uncertain as their determination is outside the control of the Company.

17. Finance Lease Obligations

	December 31, 2016	December 31, 2015
Lease obligations[(1)]	**$ 7,101**	$ 3,997

	December 31, 2016	December 31, 2015
Maturity analysis of finance leases:		
Current	**$ 3,559**	$ 2,238
Non-Current	**3,542**	1,759
	$ 7,101	$ 3,997

(1) Represents equipment lease obligations at several of the Company's subsidiaries. A reconciliation of the total future minimum lease payments at December 31 to their present value is presented in the table below.

	December 31, 2016	December 31, 2015
Less than a year	**$ 3,720**	$ 2,319
2 years	**3,242**	1,030
3 years	**359**	775
4 years	**—**	—
5 years	**—**	—
	7,321	4,124
Less future finance charges	**(220)**	(127)
Present value of minimum lease payments	**$ 7,101**	$ 3,997

18. Long Term Debt

	December 31, 2016	December 31, 2015
Credit Facility	**$ 36,200**	$ 36,200
Total long-term debt	**$ 36,200**	$ 36,200

	December 31, 2016	December 31, 2015
Maturity analysis of Long Term Debt:		
Current	**$ —**	$ —
Non-Current	**36,200**	36,200
	$ 36,200	$ 36,200

On April 15, 2015 the Company entered into a $300.0 million secured revolving credit facility with a 4-year term (the "Credit Facility") and upfront costs of $3.0 million. On May 31, 2016, the Company amended its Credit Facility by extending the term by 1 year, with additional upfront costs of $0.4 million. As part of the amendment, the financial covenants were amended to require the Company to maintain a tangible net worth (exclusive of any prospective write-downs of certain assets) of greater than $1,036.4 million plus 50% of the positive net income from and including the fiscal quarter ended March 31, 2016. In addition, the financial covenants continue to include the requirement for the Company to maintain: (i) a leverage ratio less than or equal to 3.5:1; and (ii) an interest coverage ratio more than or equal to 3.0:1. As of December 31, 2016 the Company was in compliance with all covenants required by the Credit Facility.

The upfront costs have been recorded as an asset under the classification Prepaid expenses and other current assets and are being amortized over the life of the Credit Facility. The Credit Facility can be drawn down at any time to finance the Company's working capital requirements, acquisitions, investments and for general corporate purposes.

At the option of the Company, amounts can be drawn under the Credit Facility and will incur interest based on the Company's leverage ratio at either (i) LIBOR plus 2.125% to 3.125% or; (ii) the Bank of Nova Scotia's Base Rate plus 1.125% to 2.125%. Undrawn amounts under the Credit Facility are subject to a stand-by fee of 0.478% to 0.703% per annum, dependent on the Company's leverage ratio.

At December 31, 2016 and December 31, 2015 $36.2 million was drawn on the Credit Facility under LIBOR loans at an average annual rate of 2.55%. During the year ended December 31, 2016, the Company has incurred $1.2 million (2015 - $1.1 million) in standby charges on undrawn amounts and $1.0 million (2015 - $nil) in interest on drawn amounts under this Facility.

Also, as part of the Minefinders acquisition and pursuant to the First Supplemental Indenture Agreement, the Company issued replacement unsecured convertible senior notes with an aggregate principal amount of $36.2 million (the "Minefinders Notes"). Until such time as the earlier of December 15, 2015 and the date the Minefinders Notes were converted, each note bore interest at 4.5% payable semi-annually on June 15 and December 15 of each year. The principal outstanding on the Minefinders Notes was due and settled on December 15, 2015. During the year ended December 31, 2015, the Company recorded a $0.3 gain on the settlement of the embedded derivative on the convertible notes.

19. Other Long Term Liabilities

Other long term liabilities consist of:

	December 31, 2016	December 31, 2015
Deferred credit[1]	**$ 20,788**	$ 20,788
Other income tax payable	**3,321**	6,624
Severance accruals	**3,299**	3,091
	$ 27,408	$ 30,503

(1) As part of the 2009 Aquiline transaction the Company issued a replacement convertible debenture that allowed the holder to convert the debenture into either 363,854 Pan American Shares or a Silver Stream contract related to certain production from the Navidad project. Regarding the replacement convertible debenture, it was concluded that the deferred credit presentation was the most appropriate and best representation of the economics underlying the contract as of the date the Company assumed the obligation as part of the Aquiline acquisition. Subsequent to the acquisition, the counterparty to the replacement debenture selected the Silver Stream alternative. The final contract for the alternative is being discussed and pending the final resolution of this discussion, the Company continues to classify the fair value calculated at the acquisition of this alternative, as a deferred credit.

20. Share Capital and Employee Compensation Plans

The Company has a comprehensive stock option and compensation share plan for its employees, directors and officers (the "Compensation Plan"). The Compensation Plan provides for the issuance of common shares and stock options, as incentives. The maximum number of shares which may be issued pursuant to options granted or bonus shares issued under the Compensation Plan may be equal to, but will not exceed 6,461,470 shares. The exercise price of each option shall be the weighted average trading price of the Company's stock for the five trading days prior to the award date. The options can be granted for a maximum term of 10 years with vesting provisions determined by the Company's Board of Directors. Subject to certain exceptions, any modifications to the Compensation Plan require shareholders' approval.

The Board has developed long term incentive plan ("LTIP") guidelines, which provide annual compensation to the senior managers of the Company based on the long term performance of both the Company and the individuals that participate in the plan. The LTIP consists of an annual grant of options to buy shares of the Company and a grant of the Company's common shares with a two year no trading legend. The options are seven year options which vest evenly in two annual instalments. Options and common shares granted under the LTIP plan are based on employee salary levels, individual performance and their future potential. In addition, the restricted share units ("RSUs") plan described below is part of the LTIP plan. In early 2014, the Board approved the adding of performance share units ("PSUs") to the Company's LTIP, plan described below.

The Compensation Committee oversees the LTIP on behalf of the Board of Directors. The LTIP plan guidelines can be modified or suspended, at the discretion of the Board of Directors. Additionally, from time to time, the Company issues replacement awards and warrants related to acquisitions.

Transactions concerning stock options are summarized as follows in CAD:

	Stock Options	
	Shares	**Weighted Average Exercise Price CAD$**
As at December 31, 2014	**1,394,515**	**$ 19.74**
Granted	446,279	$ 9.76
Exercised	—	$ —
Expired	(190,862)	$ 25.19
Forfeited	(97,009)	$ 23.21
As at December 31, 2015	**1,552,923**	**$ 15.98**
Granted	45,705	$ 23.61
Exercised	(254,146)	$ 12.30
Expired	(9,352)	$ 24.70
Forfeited	(24,266)	$ 21.07
As at December 31, 2016	**1,310,864**	**$ 16.81**

Long Term Incentive Plan

During the year ended December 31, 2016, the Company awarded 82,338 (2015 - 215,234) shares of common stock with a two year holding period and granted 45,705 (2015 – 446,279) options under this plan. During 2016, 14,434 common shares were issued to Directors in lieu of Directors fees of $0.2 million (2015 - 25,128 of $0.2 million). The Company used as its assumptions for calculating the fair value, a risk free interest rate of 1.2% - 1.3% (2015 – 1.5% - 2.2%), weighted average volatility of 54% using a historical volatility (2015 – 54%), expected lives ranging from 3.5 to 4.5 (2015 – 3.5 to 4.5) years, expected dividend yield of 1.4% - 1.7% (2015 – 5.4% - 6.4%), and an exercise price of CAD $23.61 (2015 – CAD $9.76) per share. The weighted average fair value of each option was determined to be CAD $8.94 (2015 – CAD $3.30).

During the year ended December 31, 2016, 254,146 common shares were issued in connection with the exercise of options under the plan (2015 – nil common shares) 9,352 options expired (2015 - 190,862) and 24,266 options were forfeited (2015 – 97,009).

Share Option Plan

The following table summarizes information concerning stock options outstanding and options exercisable as at December 31, 2016. The underlying option agreements are specified in Canadian dollar amounts.

	Options Outstanding			Options Exercisable	
Range of Exercise Prices CAD$	**Number Outstanding as at December 31, 2016**	Weighted Average Remaining Contractual Life (months)	Weighted Average Exercise Price CAD$	**Number Exercisable as at December 31, 2016**	Weighted Average Exercise Price CAD$
$9.76 - $11.57	**561,577**	66.26	$ 10.13	**338,443**	$ 10.37
$11.58 - $17.01	**186,122**	61.30	$ 11.70	**186,122**	$ 11.70
$17.02 - $18.53	**145,014**	37.94	$ 18.40	**145,014**	$ 18.40
$18.54 - $24.90	**343,543**	31.24	$ 24.73	**297,838**	$ 24.90
$24.91 - $40.22	**74,608**	11.30	$ 40.22	**74,608**	$ 40.22
	1,310,864	50.12	$ 16.81	**1,042,025**	$ 18.02

For the year ended December 31, 2016, the total employee stock-based compensation expense recognized in the income statement was $3.8 million (2015 - $2.6 million).

Performance Shares Units

In early 2014, the Board approved the adding of performance share units ("PSUs") to the Company's LTIP. PSUs are notional share units that mirror the market value of the Company's common shares (the "Shares"). Each vested PSU entitles the participant to a cash payment equal to the value of an underlying share, less applicable taxes, at the end of the term, plus the cash equivalent of any dividends distributed by the Company during the three-year performance period. PSU grants will vest on the date that is three years from the date of grant subject to certain exceptions. Performance results at the end of the performance period relative to predetermined performance criteria and the application of the corresponding performance multiplier determine how many PSUs vest for each participant. The Board approved the issuance of 38,119 PSUs (2015 – 73,263) with a share price of CAD $22.22 (2015 – CAD $9.33) as of December 31, 2016. Compensation expense for PSUs was $0.6 million in 2016 (2015 - $0.08 million) and is presented as a component of general and administrative expense.

At December 31, 2016, the following PSU's were outstanding:

PSU	**Number Outstanding**		**Fair Value**
As at December 31, 2014	**30,408**	**$**	**281**
Granted	73,263		503
Paid out	—		—
Forfeited	—		—
Change in value	—		(101)
As at December 31, 2015	**103,671**	**$**	**683**
Granted	**38,119**		**638**
Paid out	—		—
Forfeited	—		—
Change in value	—		**831**
As at December 31, 2016	**141,790**	**$**	**2,152**

Restricted Share Units

Under the Company's RSU plan, selected employees are granted RSUs where each RSU has a value equivalent to one Pan American common share. The RSUs are settled in cash or Common Shares at the discretion of the Board and vest in two installments, the first 50% vest on the first anniversary date of the grant and a further 50% vest on the second anniversary date of the grant. Additionally, RSU value is adjusted to reflect dividends paid on Pan American common share over the vesting period.

Compensation expense for RSU's was $3.5 million in 2016 (2015 – $0.6 million) and is presented as a component of general and administrative expense.

At December 31, 2016, the following RSU's were outstanding:

RSU	**Number Outstanding**		**Fair Value**
As at December 31, 2014	**240,757**	**$**	**2,261**
Granted	305,455		2,192
Paid out	(148,891)		(1,068)
Forfeited	(17,177)		(112)
Change in value	—		(778)
As at December 31, 2015	**380,144**	**$**	**2,495**
Granted	164,132		2,919
Paid out	(224,805)		(3,769)
Forfeited	(4,048)		(61)
Change in value	—		3,180
As at December 31, 2016	**315,423**	**$**	**4,764**

Issued share capital

The Company is authorized to issue 200,000,000 common shares of no par value.

Dividends

On February 14, 2017, the Company declared a quarterly dividend of $0.025 per common share paid to holders of record of its common shares as of the close of business day on February 27, 2017. These dividends were declared subsequent to the year end and have not been recognized as distributions to owners during the period presented.

On November 14, 2016, the Company declared a quarterly dividend of $0.0125 per common share paid to holders of record of its common shares as of the close of business day on November 25, 2016.

On August 11, 2016, the Company declared a quarterly dividend of $0.0125 per common share paid to holders of record of its common shares as of the close of business day on August 23, 2016.

On May 11, 2016, the Company declared a quarterly dividend of $0.0125 per common share paid to holders of record of its common shares as of the close of business day on May 24, 2016.

On February 17, 2016, the Company declared a quarterly dividend of $0.0125 per common share paid to holders of record of its common shares as of the close of business day on February 29, 2016.

On November 11, 2015, the Company declared a quarterly dividend of $0.05 per common share paid to holders of record of its common shares as of the close of business on November 23, 2015.

On August 13, 2015, the Company declared a quarterly dividend of $0.05 per common share paid to holders of record of its common shares as of the close of business on August 25, 2015.

On May 11, 2015, the Company declared a quarterly dividend of $0.05 per common share paid to holders of record of its common share as of the close of business on May 22, 2015.

On February 18, 2015, the Company declared a quarterly dividend of $0.125 per common share paid to holders of record of its common share as of the close of business on March 2, 2015.

21. Production Costs

Production costs are comprised of the following:

		2016		2015
Consumption of raw materials and consumables	**$**	**163,675**	$	202,909
Employee compensation and benefits expense (Note 22)		**148,256**		158,952
Contractors and outside services		**81,241**		84,474
Utilities		**20,335**		20,656
Other expenses [(2)]		**43,400**		37,034
Changes in inventories [(1)]		**(28,574)**		28,006
	$	**428,333**	$	532,031

[(1)] Includes NRV adjustments to inventory to reduce production costs by $42.8 million (2015 - increase by $10.9 million).

[(2)] Includes closure and decommissioning liability adjustments to reduce production costs of $1.7 million (2015 - $nil).

22. Employee Compensation and Benefit Expenses

		2016		2015
Wages, salaries and bonuses	**$**	**166,595**	$	175,242
Share-based payments		**3,826**		2,569
Total employee compensation and benefit expenses		**170,421**		177,811
Less: Expensed within General and Administrative expenses		**(18,243)**		(15,134)
Less: Expensed Exploration expenses		**(3,922)**		(3,725)
Employee compensation and benefits expenses included in production costs (Note 21)	**$**	**148,256**	$	158,952

23. Interest and Finance Expense

		2016		2015
Interest expense	**$**	**2,115**	$	3,640
Finance fees		**3,073**		1,573
Accretion expense (Note 16)		**4,363**		3,239
	$	**9,551**	$	8,452

24. Earnings (Loss) Per Share (Basic and Diluted)

For the year ended December 31,		**2016**					2015			
		Earnings (Numerator)	**Shares (000's) (Denominator)**		**Per-Share Amount**		Earnings (Numerator)	Shares (000's) (Denominator)		Per-Share Amount
Net earnings (loss)[1]	**$**	**100,085**				$	(226,650)			
Basic EPS (LPS)	**$**	**100,085**	**152,118**	**$**	**0.66**	$	(226,650)	151,664	$	(1.49)
Effect of Dilutive Securities:										
Stock Options		**—**	**386**				—	—		
Diluted EPS (LPS)	**$**	**100,085**	**152,504**	**$**	**0.66**	$	(226,650)	151,664	$	(1.49)

[1] Net earnings (loss) attributable to equity holders of the Company.

Potentially dilutive securities excluded in the diluted earnings per share calculation for the twelve months ended December 31, 2016 were 418,151 out-of-money options (2015 – 1,552,923).

25. Supplemental Cash Flow Information

The following tables summarize the changes in operating working capital items and significant non-cash items:

Changes in non-cash operating working capital items:		**2016**		2015
Trade and other receivables	**$**	**(29,125)**	$	27,514
Inventories		**19,527**		23,412
Prepaid expenses		**(3,675)**		(2,111)
Accounts payable and accrued liabilities		**13,722**		(26,750)
Provisions		**(5,994)**		(2,225)
	$	**(5,545)**	$	19,840

Significant non-cash items:		**2016**		2015
Advances received for equipment leases	**$**	**6,151**	$	3,491
Share-based compensation issued to employees and directors	**$**	**2,365**	$	1,718

Cash and Cash Equivalents		**2016**		2015
Cash in banks	**$**	**157,778**	$	123,144
Short-term money markets investments		**23,103**		10,819
Cash and cash equivalents	**$**	**180,881**	$	133,963

26. Segmented Information

All of the Company's operations are within the mining sector, conducted through operations in four countries. Due to geographic and political diversity, the Company's mining operations are decentralized in nature whereby Mine General Managers are responsible for achieving specified business results within a framework of global policies and standards. We have determined that each producing mine and significant development property represents an operating segment. Country corporate offices provide support infrastructure to the mines in addressing local and country issues including financial, human resources, and exploration support. The Company has a separate budgeting process and measures the results of operations and exploration activities independently. Operating results of operating segments are reviewed by the Company's chief operating decision maker to make decisions about resources to be allocated to the segments and assess their performance. The Corporate office provides support to the mining and exploration activities with respect to financial, human resources and technical support. Major products are silver, gold, zinc, lead and copper produced from mines located in Mexico, Peru, Argentina and Bolivia.

Significant information relating to the Company's reportable operating segments is summarized in the table below:

	for the year ended December 31, 2016									
	Peru		Mexico			Argentina		Bolivia		
	Huaron	Morococha	Dolores	Alamo Dorado	La Colorada	Manantial Espejo	Navidad	San Vicente	Other	**Total**
Revenue	$ 105,707	$ 92,889	$ 189,288	$ 45,843	$ 118,292	$ 144,048	$ —	$ 78,708	$ —	$ 774,775
Depreciation and amortization	$ (12,668)	$ (11,225)	$ (60,414)	$ (2,336)	$ (9,999)	$ (9,190)	$ (120)	$ (9,474)	$ (529)	$ (115,955)
Exploration and project development	$ (837)	$ (1,053)	$ (1,685)	$ —	$ (186)	$ —	$ (3,377)	$ —	$ (4,196)	$ (11,334)
Interest income	$ 27	$ 67	$ —	$ —	$ —	$ 389	$ 19	$ 1	$ 879	$ 1,382
Interest and financing expenses	$ (673)	$ (436)	$ (630)	$ (420)	$ (307)	$ (3,069)	$ (66)	$ (218)	$ (3,732)	$ (9,551)
Gain (loss) on disposition of assets	$ 5	$ 144	$ (22)	$ 136	$ 16,525	$ (8)	$ —	$ 23	$ 8,297	$ 25,100
Share of loss from associate and dilution gain	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 7,946	$ 7,946
Foreign exchange gain (loss)	$ (64)	$ (57)	$ 1,539	$ (393)	$ 13,887	$ (2,780)	$ 208	$ 1,511	$ (22,905)	$ (9,054)
Loss on commodity, fuel swaps and foreign currency contracts	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ (4,944)	$ (4,944)
Earnings (loss) before income taxes	$ 24,062	$ 21,497	$ 8,222	$ 3,269	$ 61,178	$ 42,097	$ (4,536)	$ 17,687	$ 2,795	$ 176,271
Income tax expense	$ (10,021)	$ (4,351)	$ (10,697)	$ (3,495)	$ (21,860)	$ (431)	$ (33)	$ (8,379)	$ (15,179)	$ (74,446)
Net earnings (loss) for the year	$ 14,041	$ 17,146	$ (2,475)	$ (226)	$ 39,318	$ 41,666	$ (4,569)	$ 9,308	$ (12,384)	$ 101,825
Capital expenditures	$ 8,854	$ 8,034	$ 113,227	$ —	$ 64,519	$ 2,868	$ 5	$ 4,864	$ 290	$ 202,661
Total assets	$ 134,579	$ 65,386	$ 827,858	$ 35,853	$ 227,923	$ 111,260	$ 193,195	$ 91,893	$ 210,194	$ 1,898,141
Total liabilities	$ 45,986	$ 23,171	$ 199,127	$ 8,880	$ 52,636	$ 40,788	$ 1,112	$ 27,161	$ 100,276	$ 499,137

	for the year ended December 31, 2015									
	Peru		Mexico			Argentina		Bolivia		
	Huaron	Morococha	Dolores	Alamo Dorado	La Colorada	Manantial Espejo	Navidad	San Vicente	Other	**Total**
Revenue	$ 75,678	$ 64,761	$ 166,125	$ 69,206	$ 89,575	$ 145,014	$ —	$ 64,329	$ —	$ 674,688
Depreciation and amortization	$ (11,537)	$ (20,398)	$ (48,626)	$ (11,567)	$ (10,918)	$ (38,453)	$ (175)	$ (8,565)	$ (606)	$ (150,845)
Exploration and project development	$ (765)	$ (1,202)	$ (400)	$ —	$ (254)	$ —	$ (6,827)	$ —	$ (2,492)	$ (11,940)
Interest income	$ 75	$ 13	$ 3	$ 345	$ 3	$ 525	$ 11	$ —	$ 37	$ 1,012
Interest and financing expenses	$ (709)	$ (565)	$ 853	$ (239)	$ (258)	$ (4,432)	$ (45)	$ (226)	$ (2,831)	$ (8,452)
Gain (loss) on disposition of assets	$ 5	$ 283	$ 40	$ 3	$ 61	$ (62)	$ —	$ 23	$ 19	$ 372
Gain on derivatives	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 278	$ 278
Foreign exchange gain (loss)	$ 250	$ 59	$ (2,267)	$ (2,728)	$ (1,488)	$ 2,939	$ 1,324	$ 921	$ (12,014)	$ (13,004)
Loss on commodity, fuel swaps and foreign currency contracts	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ (324)	$ (324)
Impairment charge	$ —	$ (62,534)	$ (31,750)	$ (9,104)	$ —	$ (28,755)	$ —	$ —	$ (18,125)	$ (150,268)
(Loss) earnings before income taxes	$ (3,393)	$ (88,214)	$ (53,968)	$ (14,735)	$ 4,745	$ (75,040)	$ (8,422)	$ 9,559	$ (6,287)	$ (235,755)
Income tax (expense) recovery	$ (2,353)	$ 7,687	$ 12,602	$ (7,892)	$ (37)	$ 1,502	$ (38)	$ (2,209)	$ (5,063)	$ 4,199
Net (loss) earnings for the year	$ (5,746)	$ (80,527)	$ (41,366)	$ (22,627)	$ 4,708	$ (73,538)	$ (8,460)	$ 7,350	$ (11,350)	$ (231,556)
Capital expenditures	$ 11,074	$ 6,758	$ 53,118	$ —	$ 58,037	$ 14,061	$ 111	$ 3,286	$ 290	$ 146,735
Total assets	$ 111,999	$ 62,012	$ 721,926	$ 68,575	$ 167,836	$ 95,866	$ 193,213	$ 81,981	$ 211,629	$ 1,715,037
Total liabilities	$ 33,576	$ 19,235	$ 164,900	$ 16,909	$ 25,305	$ 63,020	$ 1,379	$ 17,974	$ 74,123	$ 416,421

	for the year ended Dec 31,	
Product Revenue	**2016**	2015
Refined silver and gold	**$ 399,339**	$ 400,790
Zinc concentrate	**93,237**	54,239
Lead concentrate	**164,217**	135,926
Copper concentrate	**117,982**	83,733
Total	**$ 774,775**	$ 674,688

The Company has 20 customers that account for 100% of the concentrate and silver and gold sales revenue. The Company has 7 customers that accounted for 18%, 16%, 14%, 10%, 10%, 9%, and 7% of total sales in 2016, and 7 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 the Company's results of operations, financial condition, and cash flows.

27. Other Income and (expenses)

	2016	2015
Royalties income	**$ 204**	$ 161
Other income (expenses)	**1,338**	(4,923)
Total	**$ 1,542**	$ (4,762)

28. Income Taxes

Components of Income Tax Expense

		2016		2015
Current tax expense (recovery)				
Recognized in profit or loss in current year	**$**	**44,751**	$	18,079
Adjustments recognized in the current year with respect to prior years		**(720)**		(2,225)
		44,031		15,854
Deferred tax expense (recovery)				
Deferred tax expense (recovery) recognized in the current year		**27,942**		(14,241)
Adjustments recognized in the current year with respect to prior years		**1,124**		(1,747)
Adjustments to deferred tax attributable to changes in tax rates and laws		**1,302**		—
Reduction in deferred tax liabilities due to tax impact of impairment of mineral properties, plant, and equipment (Note 10,11)		**—**		(44,512)
De-recognition of previously recognized deferred tax assets		**—**		44,218
Benefit from previously unrecognized losses		**(7,861)**		—
Increase in deferred tax liabilities due to tax impact of net realizable value reversal (charge) to inventory (Note 21)		**7,908**		(3,771)
		30,415		(20,053)
Income tax expense (recovery)	**$**	**74,446**	$	(4,199)

Income tax expense (recovery) differs from the amount that would result from applying the Canadian federal and provincial income tax rates to earnings before income taxes. These differences result from the items shown on the following table which results in an effective tax rate that varies considerably from the comparable period. The main factors which have affected the effective tax rate for the year ended December 31, 2016 and the comparable period of 2015 were non-taxable foreign exchange fluctuations, changes in the non-recognition of certain deferred tax assets, mining taxes paid, and withholding taxes on payments from foreign subsidiaries.

In 2015, the Company determined that it could not support the utilization of certain deferred tax assets related to the Alamo Dorado, Manantial Espejo and Morococha properties. As a result, a deferred tax expense of $44.2 million was recorded to de-recognize these assets.

The Company continues to expect that these and other factors will continue to cause volatility in effective tax rates in the future.

Reconciliation of Effective Income Tax Rate

		2016		2015
Earnings (loss) before taxes and non-controlling interest	**$**	**176,271**	$	(235,755)
Statutory Canadian income tax rate		**26.00%**		26.00%
Income tax expense (recovery) based on above rates	**$**	**45,830**	$	(61,296)
Increase (decrease) due to:				
Non-deductible expenditures		**5,082**		5,683
Foreign tax rate differences		**9,729**		(17,626)
Change in net deferred tax assets not recognized:				
- Argentina exploration expenditures		**1,794**		2,717
- Other deferred tax assets		**(14,406)**		8,800
De-recognition of deferred tax assets previously recognized		**—**		44,218
Non-taxable portion of net earnings of affiliates		**(4,852)**		(4,915)
Changes to temporary differences		**1,429**		(1,767)
Non-taxable unrealized gains on derivative financial instruments		**—**		(72)
Effect of other taxes paid (mining and withholding)		**13,678**		6,628
Effect of foreign exchange on tax expense		**14,323**		12,941
Impairment charges and net realizable value adjustments		**—**		2,219
Other		**1,839**		(1,729)
Income tax expense (recovery)	**$**	**74,446**	$	(4,199)
Effective income tax rate		**42.23%**		1.78%

Deferred tax assets and liabilities

The following is the analysis of the deferred tax assets (liabilities) presented in the consolidated financial statements:

		2016		2015
Net deferred tax liability, beginning of year	**$**	**(138,397)**	$	(157,488)
Recognized in net earnings or loss for the year		**(30,415)**		20,053
Reduction due to Mexican de-consolidation payments applied to current tax		**(383)**		(1,009)
Other		**59**		47
Net deferred liability, end of year	**$**	**(169,136)**	$	(138,397)
Deferred tax assets		**1,727**		3,730
Deferred tax liabilities		**(170,863)**		(142,127)
Net deferred tax liability	**$**	**(169,136)**	$	(138,397)

Components of deferred tax assets and liabilities

The deferred tax assets (liabilities) are comprised of the various temporary differences as detailed below:

		2016		2015
Deferred tax assets (liabilities) arising from:				
Closure and decommissioning costs	**$**	**7,133**	$	5,657
Tax losses and mining tax credits		**26,646**		30,039
Deductible Mexican mining taxes		**2,344**		1,223
Tax credit resulting from Mexican de-consolidation		**4,790**		6,671
Accounts payable and accrued liabilities		**2,373**		2,311
Trade and other receivables		**10,526**		4,641
Provision for doubtful debts and inventory adjustments		**(16,261)**		(4,802)
Mineral properties, plant, and equipment		**(192,046)**		(176,861)
Estimated sales provisions		**(14,907)**		(7,675)
Prepaids and other current assets		**(883)**		(429)
Other temporary differences and provisions		**1,149**		828
Net deferred tax liability	**$**	**(169,136)**	$	(138,397)

At December 31, 2016, the net deferred tax liability above included the deferred tax benefit of $26.6 million related to tax losses of approximately $89.0 million. These losses will begin to expire after the 2024 year end, if unused.

At December 31, 2015, the net deferred tax liability above included the deferred tax benefit of $30.0 million related to tax losses of approximately $101.0 million. Aside from $1.5 million that was utilized against income in 2016, these losses will begin to expire after the 2024 year end, if unused.

Unrecognized deductible temporary differences, unused tax losses and unused tax credits

Deductible temporary differences, unused tax losses and unused tax credits for which no deferred tax assets have been recognized are attributable to the following:

		2016		2015
Tax loss (revenue in nature)	**$**	**171,077**	$	190,464
Net tax loss (capital in nature)		**18,759**		10,732
Resource pools and other tax credits		**20,116**		22,653
Financing fees		**1,803**		47
Mineral properties, plant, and equipment		**34,268**		45,344
Closure and decommissioning costs		**34,809**		33,788
Exploration and other expenses not currently deductible		**62,503**		59,572
Intercompany debt		**34,769**		—
Doubtful debt and inventory		**13,997**		48,485
Deferred income and estimated sales		**924**		4,072
Deductible Mexican mining taxes		**335**		946
Payroll and vacation accruals		**3,174**		1,257
Other temporary differences		**2,532**		827
	$	**399,066**	$	418,187

Included in the above amounts are operating losses, which if not utilized will expire as follows:

At December 31, 2016,

	Canada	US	Spain	Peru	Mexico	Barbados	Argentina	Total
2017	—	—	—	—	—	5	—	5
2018	—	120	—	—	—	6	7	133
2019 – and after	116,009	13,642	—	39,057	2,160	47	24	170,939
Total tax losses	**$ 116,009**	**$ 13,762**	**$ —**	**$ 39,057**	**$ 2,160**	**$ 58**	**$ 31**	**171,077**

At December 31, 2015,

	Canada	US	Spain	Peru	Mexico	Barbados	Argentina	Total
2016	—	—	—	104	—	8	—	112
2017	—	—	—	506	—	5	—	511
2018 – and after	95,054	13,732	17,520	51,476	1,752	39	10,268	189,841
Total tax losses	**$ 95,054**	**$ 13,732**	**$ 17,520**	**$ 52,086**	**$ 1,752**	**$ 52**	**$ 10,268**	**$ 190,464**

Taxable temporary differences associated with investment in subsidiaries

As at December 31, 2016, taxable temporary differences of $60.4 million (2015 – $55.4 million) associated with the investments in subsidiaries have not been recognized as the Company is able to control the timing of the reversal of these differences which are not expected to reverse in the foreseeable future.

29. Commitments and Contingencies

a. General

The Company is subject to various investigations, claims and legal and tax proceedings covering matters that arise in the ordinary course of business activities. Each of these matters is subject to various uncertainties and it is possible that some of these matters may be resolved unfavorably to the Company. Certain conditions may exist as of the date the financial statements are issued, which may result in a loss to the Company. In the opinion of management none of these matters are expected to have a material effect on the results of operations or financial conditions of the Company.

b. Environmental Matters

The Company's mining and exploration activities are subject to various laws and regulations governing the protection of the environment. These laws and regulations are continually changing and are generally becoming more restrictive. The Company conducts its operations so as to protect the public health and environment and believes its operations are in compliance with applicable laws and regulations in all material respects. The Company has made, and expects to make in the future, expenditures to comply with such laws and regulations, but cannot predict the full amount of such future expenditures.

Estimated future reclamation costs are based on the extent of work required and the associated costs are dependent on the requirements of relevant authorities and the Company's environmental policies. As of December 31, 2016, $55.6 million (2015 - $50.5 million) was accrued for reclamation costs relating to mineral properties. See also Note 16.

c. Credit Facility

On April 15, 2015 the Company entered into a $300.0 million secured revolving credit facility with a 4-year term (Note 18).

d. Income Taxes

The Company operates in numerous countries around the world and accordingly it is subject to, and pays annual income taxes under the various income tax regimes in the countries in which it operates. Some of these tax regimes are defined by contractual agreements with the local government, and others are defined by the general corporate income tax laws of the country. The Company has historically filed, and continues to file, all required income tax returns and to pay the taxes reasonably determined to be due. The tax rules and regulations in many countries are highly complex and subject to interpretation. From time to time, the Company is subject to a review of its historic income tax filings and in connection with such reviews, disputes can arise with the taxing authorities over the interpretation or application of certain rules to the Company's business conducted within the country involved.

In December 2013, the Mexican President passed a bill that increased the effective tax rate applicable to the Company's Mexican operations. The law was effective January 1, 2014 and increased the future corporate income tax rate to 30%, creating a 10% withholding tax on dividends paid to non-resident shareholders (subject to any reduction by an Income Tax Treaty) and created a new Extraordinary Mining Duty equal to 0.5% of gross revenues from the sale of gold, silver, and platinum. In addition, the law requires taxpayers with mining concessions to pay a new 7.5% Special Mining Duty. The Extraordinary Mining Duty and Special Mining Duty is tax deductible for income tax purposes. The Special Mining Duty is generally applicable to earnings before income tax, depreciation, depletion, amortization, and interest. In calculating the Special Mining Duty there are no deductions related to development type costs but exploration and prospecting costs are deductible when incurred.

e. Finance Leases

The present value of future minimum lease payments classified as finance leases at December 31, 2016 is $7.1 million (2015 - $4.0 million) and the schedule of timing of payments for this obligation is found in Note 17.

f. Law changes in Argentina

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. Historically, the Argentine government also imposed restrictions on the importation of goods and services and increased administrative procedures required to import equipment, materials and services 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 advance 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 Argentine pesos into USD or other hard currencies, exposing us to additional risks of Peso 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.

g. Political changes in Bolivia

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 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.

h. Other Legal Matters

The Company is subject to various claims and legal proceedings covering a wide range of matters that arise in the ordinary course of business activities, many of them relating to ex-employees. Each of these matters is subject to various uncertainties and it is possible that some of these matters may be resolved unfavorably to the Company. The Company establishes provisions for matters that are probable and can be reasonably estimated, included within current liabilities, and amounts are not considered material.

In assessing loss contingencies related to legal proceedings that are pending against the Company or un-asserted claims that may result in such proceedings, the Company and its legal counsel evaluate the perceived merits of any legal proceedings or un-asserted claims as well as the perceived merits of the amount of relief sought or expected to be sought. In the opinion of management there are no claims expected to have a material effect on the results of operations or financial condition of the Company.

i. Title Risk

Although the Company has taken steps to verify title to properties in which it has an interest, these procedures do not guarantee the Company's title. Property title may be subject to, among other things, unregistered prior agreements or transfers and may be affected by undetected defects.

j. Royalty Agreements and Participation Agreements

The Company has various royalty agreements on certain mineral properties entitling the counterparties to the agreements to receive payments per terms as summarized below. Royalty liabilities incurred on acquisitions of properties are netted against mineral property while royalties that become payable upon production are expensed at the time of sale of the production.

As part of the Arrangement closed with Maverix on July 11, 2016 (Note 12), Maverix acquired from the Company a portfolio of royalties, precious metals streams and payment agreements, in exchange for a 54% interest in Maverix (43% fully diluted as at December 31, 2016). The key portfolio assets included the economic equivalent of one hundred percent (100%) of the gold produced from Pan American's operating La Colorada silver mine, less a fixed price of US$650 per ounce for the life of the mine, as well as an agreement to purchase five percent (5%) of future gold production at a fixed price of US$450 per ounce from the feasibility stage La Bolsa project. The portfolio also included, among others, the equivalent of a net smelter returns royalty of one and one-quarter percent (1¼%) on all metals produced from the pre-feasibility stage Calcatreu project, and a net smelter returns royalty of one percent (1%) on the Pico Machay project, both of which are currently owned by Pan American.

On September 22, 2011, Peru's Parliament approved a law that increased mining taxes to fund anti-poverty infrastructure projects in the country, effective October 1, 2011. The law changed the scheme for royalty payments, so that mining companies that had not signed legal stability agreements with the government had to pay royalties of 1% to 12% on operating profit; royalties under the previous rules were 1% to 3% on net sales. In addition to these royalties, such companies were subject to a "special tax" at a rate ranging from 2% to 8.4% of operating profit. Companies that had concluded legal stability agreements (under the General Mining Law) will be required to pay a "special contribution" of between 4% and 13.12% of operating profits. The change in the royalty and the new tax had no material impact on the results of the Company's Peruvian operations.

In the province of Chubut, Argentina which is the location of the Company's Navidad property, there is a provincial royalty of 3% of the "Operating Income". Operating income is defined as revenue minus production costs (not including mining costs), treatment and transportation charges. Refer below to the Navidad project section below for further details.

As part of the 2009 Aquiline transaction the Company issued a replacement convertible debenture that allowed the holder to convert the debenture into either 363,854 Pan American shares or a silver stream contract related to certain production from the Navidad project. Subsequent to the acquisition, the counterparty to the replacement debenture has indicated its intention to elect the silver stream alternative. The final contract for the alternative is being discussed and pending the final resolution to this alternative, the Company continues to classify the fair value calculated at the acquisition of this alternative, as a deferred credit as disclosed in Note 19.

Huaron and Morococha mines

In June 2004, Peru's Congress approved a bill that allows royalties to be charged on mining projects. These royalties are payable on Peruvian mine production at the following progressive rates: (i) 1.0% for companies with sales up to $60.0 million; (ii) 2.0% for companies with sales between $60.0 million and $120.0 million; and (iii) 3.0% for companies with sales greater than $120.0 million. This royalty is a net smelter returns royalty, the cost of which is deductible for income tax purposes.

Manantial Espejo mine

Production from the Manantial Espejo property is subject to royalties to be paid to Barrick Gold Corp. 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, the Company has negotiated a royalty equal to 3.0% of operating cash flow payable to the Province of Santa Cruz.

San Vicente mine

Pursuant to an option agreement entered into with COMIBOL, a Bolivian state mining company, with respect to the development of the San Vicente property, the Company is obligated to pay COMIBOL a participation fee of 37.5% (the "Participation Fee") of the operation's cash flow. Once full commercial production of San Vicente began, the Participation Fee was reduced by 75% until the Company recovered its investment in the property. The Participation Fee has now reverted back to the original percentage. For the year ended December 31, 2016, the royalties paid to COMIBOL amounted to approximately $14.3 million (2015 - $8.1 million).

A royalty is also payable to EMUSA, a former partner of the Company on the project. The royalty is a 2% net smelter return royalty (as per the Agreement) payable only after the Company has recovered its capital investment in the project and only when the average price of silver in a given financial quarter is $9.00 per ounce or greater. For the year ended December 31, 2016 the royalties paid to EMUSA amounted to approximately $1.0 million (2015 - $0.8 million).

In December 2007, the Bolivian government introduced a new mining royalty that affects the San Vicente project. The royalty is applied to gross metal value of sales (before smelting and refining deductions) and the royalty percentage is a sliding scale depending on metal prices. At current metal prices, the royalty is 6% for silver metal value and 5% for zinc and copper metal value of sales. The royalty is income tax deductible. For the year ended December 31, 2016 the royalty amounted to $5.6 million (2015 - $5.2 million).

Dolores mine

Production from the Dolores mine is subject to underlying net smelter return royalties comprised of 2% on gold and silver production and 1.25% on gold production. These royalties are payable to Royal Gold Inc. and were effective in full as of May 1, 2009, on the commencement of commercial production at the Dolores mine. The royalties to Royal Gold amounted to approximately $5.3 million for the year ended December 31, 2016 (2015 – $4.3 million).

Navidad project

In late June 2012 the governor of the province of Chubut submitted to the provincial legislature a draft law which, if passed, would regulate all future oil and gas and mining activities in the province. The draft legislation incorporated the expected re-zoning of the province, allowing for the development of Navidad as an open pit mine. However, the draft legislation also introduced a series of new regulations that would have greatly increased provincial royalties and imposed the province's direct participation in all mining projects, including Navidad.

In October 2012, the proposed bill was withdrawn for further study; however, as a result of uncertainty over the zoning, regulatory and tax laws which will ultimately apply, the Company has temporarily suspended project development activities at Navidad.

The Company remains committed to the development of Navidad and to contributing to the positive economic and social development of the province of Chubut upon the adoption of a favorable legislative framework.

30. Related Party Transactions

The Company's related parties include its subsidiaries, associates over which it exercises significant influence, and key management personnel. During its normal course of operation, the Company enters into transactions with its related parties for goods and services. All related party transactions for the years ended December 31, 2016 and 2015 have been disclosed in these consolidated financial statements. Related party transactions with Maverix have been disclosed in Note 12 of these consolidated financial statements.

During the year ended December 31, 2016, a director of the Company was paid approximately $0.1 million (2015 - $nil) directly for consulting services from January 1, 2016 to June 30, 2016. During the year ended December 31, 2016, a company indirectly owned by a trust of which a director of the Company is a beneficiary, was paid approximately $nil (2015 - $1.4 million) for consulting services. These transactions are in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the parties.

Compensation of key management personnel

The remuneration of directors and other members of key management personnel during the year were as follows:

		2016		2015
Short-term benefits	**$**	**10,052**	$	9,069
Share-based payments		**2,172**		3,161
	$	**12,224**	$	12,230

31. Subsequent Event

On January 13, 2017, the Company entered into a definitive agreement with Coeur Mining Inc. to acquire 100% of Coeur's Joaquin project, located in the Santa Cruz province of southern Argentina. Under the terms of the definitive agreement, consideration payable to Coeur included $15 million in cash and $10 million in Pan American common shares, along with a 2.0% net smelter returns royalty ("NSR") on the Joaquin project. The Joaquin transaction closed on February 10, 2017.

Reporting Currency and Financial Information

Unless otherwise specified, all references to dollar amounts or $ are to United States dollars.

Cautionary Note Regarding Forward-Looking Statements and Information

Certain of the statements and information in this annual report constitute "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 and "forward-looking information" within the meaning of applicable Canadian provincial securities laws. All statements, other than statements of historical fact, are forward-looking statements or information. Forward-looking statements or information in this annual report relate to, among other things: our estimated production of silver, gold and other metals in 2017 and future years; our estimated cash costs per payable ounce of silver and AISCSOS in 2017 and future years; the ability of the Company to successfully complete any capital investment programs and projects, and the impacts of any such programs and projects on the Company; the ability of the Company to realize value from transactions, including with respect to Maverix Metals Inc.; expectations with respect to future prices of silver or other precious metals, world-wide silver production, or global demand on silver, or other similar metrics relating to silver; the anticipated results of exploration programs, particularly the ability of the Company to replace production or grow resources and reserves; any upside potential of the Navidad project and the impact that any such development might have on the Company; and any anticipated level of financial and operational success in 2017 and future years.

These statements and information reflect the Company's current views with respect to future events and are necessarily based upon a number of assumptions that, while considered reasonable by the Company, are inherently subject to significant operational, business, economic and regulatory uncertainties and contingencies. These assumptions include: tonnage of ore to be mined and processed; ore grades and recoveries; prices for silver, gold and base metals remaining as estimated; currency exchange rates remaining as estimated; capital, decommissioning and reclamation estimates; our mineral reserve and resource estimates and the assumptions upon which they are based; prices for energy inputs, labour, materials, supplies and services (including transportation); no labour-related disruptions at any of our operations; no unplanned delays or interruptions in scheduled production; all necessary permits, licenses and regulatory approvals for our operations are received in a timely manner; and our ability to comply with environmental, health and safety laws. The foregoing list of assumptions is not exhaustive.

The Company cautions the reader that forward-looking statements and information involve known and unknown risks, uncertainties and other factors that may cause actual results and developments to differ materially from those expressed or implied by such forward-looking statements or information contained in this annual report and the Company has made assumptions and estimates based on or related to many of these factors. Such factors include, without limitation: fluctuations in silver, gold and base metal prices; fluctuations in prices for energy inputs, labour, materials, supplies and services (including transportation); fluctuations in currency markets (such as the Canadian dollar, Peruvian sol, Mexican peso, Argentine peso and Bolivian boliviano versus the U.S. dollar); operational risks and hazards inherent with the business of mining (including environmental accidents and hazards, industrial accidents, equipment breakdown, unusual or unexpected geological or structural formations, cave-ins, flooding and severe weather); risks relating to the credit worthiness or financial condition of suppliers, refiners and other parties with whom the Company does business; inadequate insurance, or inability to obtain insurance, to cover these risks and hazards; employee relations; relationships with, and claims by, local communities and indigenous populations; our ability to obtain all necessary permits, licenses and regulatory approvals in a timely manner; the presence of laws and regulations that may impose restrictions on mining, including those currently in place in the Province of Chubut, Argentina; changes in laws, regulations and government practices in the jurisdictions where we operate, including environmental, export and import laws and regulations; the Company's ability to complete and successfully integrate acquisitions; challenges to, or difficulty in maintaining, the Company's title to properties and continued ownership thereof; the actual results of current exploration activities, conclusions of economic evaluations, and changes in project parameters to deal with unanticipated economic or other factors; diminishing quantities or grades of mineral reserves as properties are mined; increased competition in the mining industry for equipment and qualified personnel; and those factors identified under the caption "Risks Related to Pan American's Business" in the Company's most recent form 40-F and Annual Information Form filed with the United States Securities and Exchange Commission (the "SEC") and Canadian provincial securities regulatory authorities. Although the Company has 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 anticipated, estimated, described or intended. Investors are cautioned against undue reliance on forward-looking statements or information. Forward-looking statements and information are designed to help readers understand management's current views of our near and longer term prospects and may not be appropriate for other purposes. The Company does not intend, nor does it assume any obligation to update or revise forward-looking statements or information, whether as a result of new information, changes in assumptions, future events or otherwise, except to the extent required by applicable law.

Cautionary Note to US Investors Concerning Estimates of Mineral Reserves and Resources

This annual report has been prepared in accordance with the requirements of Canadian securities laws, which differ from the requirements of U.S. securities laws. Unless otherwise indicated, all mineral reserve and resource estimates included in this annual report have been prepared in accordance with Canadian National Instrument 43-101 – Standards of Disclosure for Mineral Projects (''NI 43-101'') and the Canadian Institute of Mining, Metallurgy and Petroleum classification system. 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 standards, including NI 43-101, differ significantly from the requirements of the SEC, and information concerning mineralization, deposits, mineral reserve and resource information contained or referred to herein may not be comparable to similar information disclosed by U.S. companies. In particular, and without limiting the generality of the foregoing, this annual report uses 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. 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. 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". U.S. investors should also understand that "inferred resources" have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of "inferred resources" exist, are economically or legally mineable or will ever be upgraded to a higher category. Under Canadian securities laws, estimated "inferred resources" may not form the basis of feasibility or pre-feasibility studies except in rare cases. Disclosure of "contained ounces" in a mineral resource is 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. Accordingly, information concerning mineral deposits set forth herein may not be comparable with information made public by companies that report in accordance with U.S. standards.

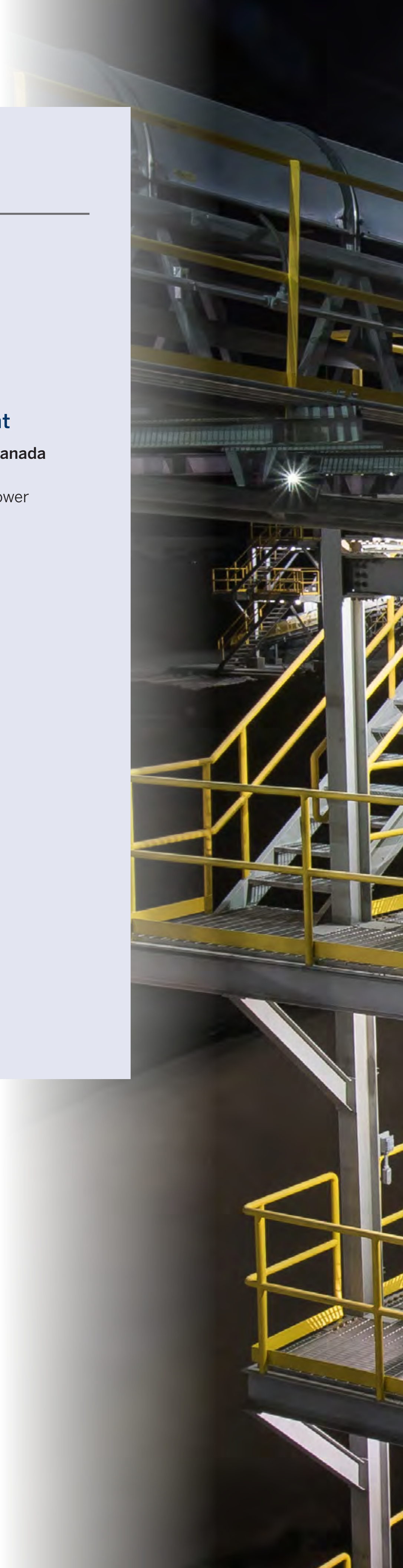
Technical Information

Technical information contained in this annual report with respect to Pan American has been reviewed and approved by Chris Emerson, FAusIMM., Vice President, Business Development and Geology, and Martin Wafforn, P.Eng., Senior Vice President Technical Services and Process Optimization, who are qualified persons for the purposes of NI 43-101. For additional information about the Company's material mineral properties, please refer to the Company's Annual Information Form dated March 22, 2017, filed at www.sedar.com.

Non-GAAP Measures

This annual report refers to various Non-GAAP measures, such as cash costs per payable ounce of silver, all-in sustaining cost per silver ounce sold and adjusted (loss) earnings. Readers should refer to the "Alternative Performance (Non-GAAP) Measures" section in Pan American Silver Corp.'s (the "Company") Management's Discussion and Analysis for the period ended December 31, 2016 included in this annual report, and available at www.sedar.com.

Corporate Information



Corporate Office

1440 - 625 Howe St
Vancouver, British Columbia
Canada V6C 2T6
604-684-1175
info@panamericansilver.com

Board of Directors

Ross J. Beaty – Chairman [1]
Michael Carroll [1,2]
Neil de Gelder [2,4]
Noel Dunn [1,4,5]
David Press [3,5]
Walter Segsworth [3,5]
Michael Steinmann [1,3]
Gillian Winckler [2,3]

Committees: [1] Finance [2] Audit [3] Health, Safety, Environment and Communities [4] Nominating and Governance [5] Human Resources and Compensation

Executive Management

Michael Steinmann – *President & Chief Executive Officer*
Steve Busby – *Chief Operating Officer*
Robert Doyle – *Chief Financial Officer*
Sean McAleer – *Vice President, Human Resources & Security*
George Greer – *Senior Vice President, Project Development*
Christopher Emerson – *Vice President, Business Development & Geology*

For biographies of Pan American's Directors and Executive Management, please visit www.panamericansilver.com

Auditors

Deloitte & Touche LLP, Chartered Professional Accountants
2800 – 1055 Dunsmuir Street
Vancouver, British Columbia
Canada V7X 1P4

Registrar and Transfer Agent

Computershare Trust Company of Canada
Investor Services
100 University Ave. 9th Floor, North Tower
Toronto, Ontario
Canada M5J 2Y1
1-800-564-6253
service@computershare.com

External Legal Counsel

Borden Ladner Gervais
1200 – 200 Burrard St.
Vancouver, British Columbia
Canada V7X 1T2

Share Information

NASDAQ: PAAS
TSX: PAAS
Common shares outstanding
at Dec. 31, 2016: 152.3 million

Investor Contact

Siren Fisekci
Vice President, Investor Relations
and Corporate Communications
T: (604) 684-1175
E: ir@panamericansilver.com

Annual Meeting

Tuesday, May 9th, 2017 – 2:00pm (PST)
Fairmont Waterfront Hotel, Malaspina Room
900 Canada Place Way
Vancouver, British Columbia
Canada V6C 3L5

zero 100% carbon neutral
by Hemlock Printers www.hemlock.com/zero

FSC www.fsc.org MIX Paper from responsible sources FSC® C014956