



**PAN AMERICAN**  
— SILVER —

# **Annual Information Form**

**For the Year  
Ended December 31, 2023**

March 26, 2024

2100 – 733 Seymour Street  
Vancouver, British Columbia  
V6B 0S6

*[www.panamericansilver.com](http://www.panamericansilver.com)*

**PAN AMERICAN SILVER CORP.  
ANNUAL INFORMATION FORM**

**WHAT'S INSIDE**

---

PAN AMERICAN SILVER CORP. ANNUAL INFORMATION FORM .....	1
WHAT'S INSIDE .....	1
IMPORTANT INFORMATION ABOUT THIS DOCUMENT .....	2
CORPORATE STRUCTURE .....	8
GENERAL DEVELOPMENT OF THE BUSINESS .....	15
NARRATIVE DESCRIPTION OF THE BUSINESS .....	20
RISKS RELATED TO OUR BUSINESS .....	56
DIVIDENDS .....	75
MARKET FOR SECURITIES .....	76
DIRECTORS AND EXECUTIVE OFFICERS .....	77
CONFLICTS OF INTEREST .....	81
LEGAL PROCEEDINGS AND REGULATORY ACTIONS .....	81
INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS .....	81
TRANSFER AGENTS AND REGISTRAR .....	81
SECURITIES SUBJECT TO CONTRACTUAL RESTRICTIONS ON TRANSFER .....	81
MATERIAL CONTRACTS .....	82
INTERESTS OF EXPERTS .....	82
EXCEPTIONS FROM NYSE CORPORATE GOVERNANCE REQUIREMENTS .....	82
ADDITIONAL INFORMATION .....	82
GLOSSARY OF TERMS .....	83
APPENDIX "A" .....	A-1

## IMPORTANT INFORMATION ABOUT THIS DOCUMENT

---

This annual information form (“AIF”) provides important information about Pan American Silver Corp. It describes our business, including our goals and strategy, our history, our operations and development projects, our mineral reserves and mineral resources, our approach to environmental, social and governance (“ESG”) matters, the regulatory environment that we operate in, the risks we face, and the market for our products, among other things.

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

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

### Reporting Currency and Financial Information

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

All financial information presented in this AIF was prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board.

The term “Silver Segment” for 2023 used within is comprised of the La Colorada, Cerro Moro, Huaron, San Vicente, and Manantial Espejo (including COSE and Joaquin) mines, while the “Gold Segment” was comprised of the Jacobina, El Peñon, Dolores, Shahuindo, La Arena, Timmins West and Bell Creek, and the Minera Florida mines. The contributions from the Jacobina, El Peñon, Cerro Moro and Minera Florida mines are for the period March 31, 2023, to December 31, 2023, unless otherwise stated.

### Non-GAAP Measures

This AIF refers to various non-generally accepted accounting principles (“non-GAAP”) measures, such as cash costs per ounce sold, net of by-product credits (“Cash Costs”), all-in sustaining costs per ounce sold (“AISC”), working capital, net cash, and total debt. Readers should refer to the section entitled “Alternative Performance (Non-GAAP) Measures” in our management’s discussion and analysis for the year ended December 31, 2023 (the “2023 MD&A”) for a detailed description and reconciliation of these non-GAAP measures. The 2023 MD&A is available under our SEDAR+ profile at [www.sedarplus.ca](http://www.sedarplus.ca) and on our website at [www.panamericansilver.com](http://www.panamericansilver.com).

#### ***Per Ounce Measures - Cash Costs and AISC***

Cash Costs and AISC are non-GAAP financial measures that do not have any standardized meaning prescribed by IFRS and are therefore unlikely to be comparable to similar measures presented by other companies.

Pan American produces by-product metals incidentally to our silver and gold mining activities. We have adopted the practice of calculating a performance measure with the net cost of producing an ounce of silver and gold, our primary payable metals, after deducting revenues gained from incidental by-product production. 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 and gold industry. Cash costs per ounce is conceptually understood and widely reported in the mining industry.

We believe that AISC, also calculated net of by-products, is a comprehensive measure of the full cost of operating our business, given it includes the cost of replacing silver and gold ounces through exploration, the cost of ongoing capital investments (sustaining capital), as well as other items that affect our consolidated cash flow.

Silver Segment Cash Costs and AISC are calculated net of credits for realized revenues from all metals other than silver (“silver segment by-product credits”) and are calculated per ounce of silver sold. Gold Segment Cash Costs and AISC are calculated net of credits for realized silver revenues (“gold segment by-product credits”) and are calculated per ounce of gold sold.

## **Working Capital**

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

## **Total Debt**

Total debt is a non-GAAP financial 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 IFRS and is therefore unlikely to be comparable to similar measures presented by other companies. Pan American and certain investors use this information to evaluate the financial debt leverage of Pan American.

## **Glossary of Terms**

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

## **Conversion Table**

In this AIF, metric units are used with respect to mineral properties unless otherwise indicated. Conversion rates from imperial to metric units and from metric to imperial units are provided in the table set out below.

<b>Imperial Measure</b>	<b>=</b>	<b>Metric Unit</b>	<b>Metric Unit</b>	<b>=</b>	<b>Imperial Measure</b>
2.47 acres		1 hectare	0.405 hectares		1 acre
3.28 feet		1 metre	0.305 metres		1 foot
0.621 miles		1 kilometre	1.609 kilometres		1 mile
0.032 ounces (troy)		1 gram	31.1 grams		1 ounce (troy)
1.102 tons (short)		1 tonne	0.907 tonnes		1 ton (short)
0.029 ounces (troy)/ton (short)		1 gram/tonne	34.28 grams/tonne		1 ounce (troy)/ton (short)
2205 pounds		1 tonne	0.454 kilograms		1 pound

## **Caution About Forward-Looking Information**

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

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

- It typically includes words and phrases about the future, such as *believe, estimate, anticipate, expect, plan, intend, predict, goal, target, forecast, project, scheduled, potential, strategy* and *proposed* (see examples starting on page 4).
- It is based on a number of material assumptions, including, but not limited to, those we have listed below, that may prove to be incorrect.
- Actual results and events may be significantly different from what we currently expect, because of, among other things, the risks associated with our business. We list a number of these material risks below under “Material Risks and Assumptions”. We recommend you also review other parts of this AIF, including “Risks Related to Our Business” starting on page 56, and our 2023 MD&A, which includes a discussion of other material risks that could cause our actual results to differ from our current expectations.

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

## **Examples of Forward-Looking Information in this AIF:**

- the price of silver, gold and other metals and assumed foreign exchange rates;
- the accuracy of mineral reserve and mineral resource estimates at the La Colorada, Shahuindo, El Peñon, Jacobina and Escobal mines, as well as other projects and properties;
- estimated production rates for silver and other payable metals we produce, timing of production and estimated cash and total costs of production;

- our anticipated operating cash flow and the estimated cost and availability of funding for working capital requirements and capital replacement, improvement or remediation programs, care and maintenance programs, and for future construction and development projects;
- the outcome of the International Labour Organization Convention No. 169 ("ILO 169") consultation process in Guatemala with respect to the Escobal mine, the resolution of other matters ordered by the courts in Guatemala, and our anticipated engagement with local communities and the Xinka population;
- the sufficiency of our liquid assets to satisfy our 2024 working capital requirements, to fund currently planned capital expenditures (including both sustaining and project capital) for existing operations, and to discharge liabilities as they come due;
- our ability to take advantage of further strategic opportunities as they are identified and become available;
- the results of the recent preliminary economic assessment ("PEA") relating to the La Colorada skarn project and any anticipated results therefrom, including any anticipated production, internal rates of return, project and other project economics or metrics;
- the Escobal and Manantial Espejo mines and the Navidad project remaining on care and maintenance;
- our ability to successfully restart the Escobal mine if the ILO 169 consultation-related suspension ends;
- our ability to obtain necessary permits and licenses, including for current or future operations, project development and expansion;
- the potential future successful development of the Navidad project, the La Colorada skarn project and other development projects;
- the possibility that the current joint venture agreement relating to the San Vicente mine will need to be renegotiated;
- the effects of laws, regulations and government policies affecting our operations, including, without limitation, expectations relating to or the effect of certain highly restrictive laws and regulations applicable to mining in the Province of Chubut, Argentina;
- the estimates of expected or anticipated economic returns from a mining project, as reflected in PEAs, pre-feasibility, and feasibility studies or other reports prepared in relation to development of projects;
- that we will continue to oppose the SEDATU (as defined below) process relating to La Colorada property's surface lands;
- our expectation that UNDRIP and the UNDRIP Act (as those terms are defined below) are likely to result in more robust consultation processes with potentially affected Indigenous peoples;
- estimated exploration expenditures to be incurred on our various exploration properties;
- compliance with environmental, health, safety, and other regulations;
- our goal to continue to be a responsible company, committed to sustainable development and conducting our activities in an environmentally and socially responsible manner, including the development and implementation of policies and practices in support of these goals;
- our plan to meet climate-related goals and the anticipated nature and effect of climate-related risks;
- our ability to manage physical and transition risks related to climate change and successfully adapt our business strategy to a low carbon global economy;
- the pursuit of legal and commercial avenues to collect amounts owing to us under our contracts;
- estimated future closure, reclamation and remediation costs;
- our belief that we are well positioned to take advantage of strategic opportunities as they become available;
- forecast capital and non-operating spending;
- future income tax rates;
- our dividend policy;
- future sales of the metals, concentrates or other products produced by us, the availability and location of refining facilities and sales counterparts, and any plans and expectations with respect to hedging;
- our ability to maintain relationships of trust with our stakeholders and community support for our activities;
- continued access to necessary infrastructure, including, without limitation, access to power, water, lands and roads to carry on activities as planned;
- expectations with respect to any future pandemics on our operations, and assumptions related thereto;
- that we will be, or will continue to be, the world's premier silver producer and one of the world's leading silver mining companies;
- our intention to acquire or discover silver resources that have the potential to be developed economically and to add meaningfully to our production profile while lowering consolidated costs of production; and
- the results of investment and development activities at our material mineral properties.

## Material Risks and Assumptions:

The forward-looking information in this AIF reflects our current views with respect to future events and are based upon a number of assumptions and estimates that, while considered reasonable by us, are inherently subject to significant business, economic, competitive, political, environmental, 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 forward-looking information in this AIF and documents incorporated by reference herein, and we have made assumptions based on or related to many of these factors.

Such factors include, without limitation:

- fluctuations in spot and forward markets for silver, gold, base metals, and certain other commodities (such as natural gas, fuel oil and electricity);
- restrictions on mining in the jurisdictions in which we operate;
- laws and regulations governing our operation, exploration, and development activities, including international laws and legal norms, such as those relating to Indigenous peoples and human rights;
- our ability to obtain or renew the licenses and permits necessary for the operation and expansion of our existing operations and for the development, construction, and commencement of new operations, including the license and export permits necessary to operate the Escobal mine which are currently suspended or have not been renewed;
- risks relating to our operations in Canada, Mexico, Peru, Bolivia, Argentina, Guatemala, Brazil, Chile and other foreign jurisdictions where we may operate;
- inherent risks associated with tailings facilities and heap leach operations, including failure or leakages;
- work stoppages or other impacts of roadblocks, civil unrest, riots, terrorism, and other similar events;
- relations with and claims by Indigenous peoples, local communities, and non-governmental organizations;
- the speculative nature of mineral exploration and development;
- diminishing quantities or grades of mineral reserves as properties are mined;
- the inability to determine, with certainty, the production of metals and cost estimates, or the prices to be received before mineral reserves or mineral resources are actually mined;
- inadequate or unreliable infrastructure (such as roads, bridges, power sources and water supplies);
- environmental regulations and legislation;
- our ability to obtain, maintain, and, when necessary, defend challenges to surface rights or other access that are necessary for continuing and future operations and planned developments, including with respect to the La Colorada and Shahuindo properties;
- risks and hazards associated with the business of mineral exploration, development, and mining (including environmental hazards, potential unintended releases of contaminants, industrial accidents, unusual or unexpected geological or structural formations, pressures, cave-ins, and flooding);
- reclamation and ongoing post-closure monitoring and maintenance requirements;
- the effects of climate change, extreme weather events, water scarcity, and seismic events, and the effectiveness of strategies to deal with these issues, including risks and strategies related to the transition to a low-carbon global economy;
- risks relating to the creditworthiness and financial condition of our suppliers, refiners, and other parties;
- fluctuations in currency markets (such as the Peruvian nuevo sol ("PEN"), Mexican peso ("MXN"), Argentine peso ("ARS"), the Bolivian boliviano ("BOB"), Chilean Peso ("CLP"), Brazilian Real ("BRL") and the Guatemalan quetzal ("GTQ") and CAD versus the USD);
- the volatility of the metals markets, and its potential to impact our ability to meet our financial obligations;
- the inability to recruit and retain qualified personnel, or maintain positive relationships with our employees;
- disputes as to the validity of mining or exploration titles, claims or rights, which constitute most of our property holdings;
- our ability to maintain the required credit ratings and satisfy the requirements in respect of Pan American, Yamana Gold Inc. ("Yamana") and the \$500 million principal, 2.63% interest senior notes due August 2031 and \$300 million principal, 4.625% interest senior notes due December 2027 (collectively, the "Senior Notes");
- our ability to complete and successfully integrate acquisitions and to complete any desired dispositions;
- increased competition in the mining industry for properties and equipment;
- limited supply of materials and supply chain disruptions;
- the effectiveness of our internal control over financial reporting;
- claims and legal proceedings arising in the ordinary course of business activities, including the class action claims and derivative claims, such as those initiated against Tahoe Resources Inc. ("Tahoe");
- the impact of pandemics on our operations and financial performance; and

- those factors identified under “Risks Related to our Business” in this AIF and the documents incorporated by reference herein, if any.

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

Please see “Cautionary Note to U.S. Investors Concerning Estimates of Mineral Reserves and Mineral Resources” on page 6 of this AIF.

## Scientific and Technical Information

Christopher Emerson, FAusIMM, our VP, Exploration and Geology, and Martin Wafforn, P. Eng., our Senior VP, Technical Services and Process Optimization, have reviewed and approved the scientific and technical information in this AIF. Scientific and technical disclosure in this AIF for our material properties is based on reports prepared in accordance with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* (“NI 43-101”) (collectively, the “Technical Reports”). The Technical Reports have been filed on SEDAR+ at www.sedarplus.ca. The technical information in this AIF has been updated with more current information where applicable, such updated information having been prepared under the supervision of, or reviewed by, Christopher Emerson and Martin Wafforn. Mineral reserve and mineral resource estimates in this AIF relating to the La Colorada, Shahuindo, El Peñon, Jacobina and Escobal mines have been reviewed and approved by Christopher Emerson and Martin Wafforn. Scientific and technical information relating to current and planned exploration programs set out in this AIF are prepared and/or designed and carried out under the supervision of, or were reviewed by, Christopher Emerson.

The Technical Reports are as follows:

- a report relating to the La Colorada property entitled “Amended NI 43-101 Technical Report for the La Colorada Property, Zacatecas, Mexico”, dated effective December 18, 2023, by M. Wafforn, C. Emerson, P. Mollison, A. Delgado, and M. Andrews;
- a report relating to the Shahuindo mine entitled “Technical Report on the Shahuindo Mine, Cajabamba, Peru” dated effective November 30, 2022, by M. Wafforn, C. Emerson, and A. Delgado (the “Shahuindo Technical Report”);
- a report relating to the Jacobina mine entitled “NI 43-101 Technical Report for the Jacobina Gold Mine, Bahia State, Brazil” dated effective June 30, 2023, by M. Wafforn, C. Passos, A. Delgado, C. Iturralde, and M. Andrews (the “Jacobina Technical Report”);
- a report relating to the El Peñon mine entitled “NI 43-101 Technical Report, El Peñon Gold-Silver Mine, Antofagasta Region, Chile” dated effective December 31, 2020, by S. Castro, M. Velásquez Corrales, H. Marsden, and C. Iturralde (the “El Peñon Technical Report”); and
- a report relating to the Escobal mine entitled “Escobal Mine Guatemala: NI 43-101 Feasibility Study, Southeastern Guatemala” dated effective November 5, 2014, by M3 Engineering & Technology Corp., with authors C. Huss, T. Drielick, D. Roth, P. Tietz, M. Blattman, and J. Caldwell.

Each of Martin Wafforn, P. Eng., Christopher Emerson, FAusIMM, Americo Delgado, P.Eng., Camila Passos, P.Geo., Carlos Iturralde, P.Eng., Peter Mollison, P.Eng., Matthew Andrews, FAusIMM, Sergio Castro, Registered Member CMC, Marco Velásquez Corrales, Registered Member CMC, Henry Marsden, P.Geo., Conrad Huss, P.Eng., Thomas Drielick, P.Eng., Daniel Roth, P.Eng., Paul Tietz, C.P.G., Matthew Blattman, P.Eng., and Jack Caldwell, P.Eng. is or was, in relation to the Technical Reports, a “Qualified Person” as defined in NI 43-101. A “Qualified Person” means an engineer or geoscientist with a university degree, or equivalent accreditation, in an area of geoscience, or engineering, relating to mineral exploration or mining, with at least five years of experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these, that is relevant to his or her professional degree or area of practice, has experience relevant to the subject matter of the mineral project, and is a member in good standing of a professional association.

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

Unless otherwise indicated, all reserve and resource estimates included in this AIF and the documents incorporated by reference herein have been prepared in accordance with NI 43-101 and the Canadian Institute of Mining, Metallurgy and Petroleum (the “CIM”) — *CIM Definition Standards on Mineral Resources and Mineral Reserves*, adopted by the CIM Council, as amended (the “CIM Standards”). 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 States Securities and Exchange Commission (the “SEC”), and reserve and resource information included herein may not be comparable to similar information disclosed by U.S. companies. In particular, and without limiting the generality of the foregoing, this AIF and the documents incorporated by reference herein use the terms “measured resources,” “indicated resources” and “inferred resources” as defined in

accordance with NI 43-101 and the CIM Standards. Mineralization described using these terms has a greater amount of uncertainty as to its existence and feasibility than mineralization that has been characterized as reserves. Accordingly, U.S. investors are cautioned not to assume that any measured mineral resources, indicated mineral resources, or inferred mineral resources that Pan American reports are or will be economically or legally mineable. Further, "inferred mineral resources" have a greater amount of uncertainty as to their existence and as to whether they can be mined legally or economically. Under Canadian securities laws, estimates of "inferred mineral resources" may not form the basis of feasibility or pre-feasibility studies, except in rare cases. While the above terms under the U.S. Rules are "substantially similar" to the standards under NI 43-101 and CIM Standards, there are differences in the definitions under the U.S. Rules and CIM Standards. Accordingly, there is no assurance any mineral reserves or mineral resources that Pan American may report as "proven mineral reserves", "probable mineral reserves", "measured mineral resources", "indicated mineral resources" and "inferred mineral resources" under NI 43-101 would be the same had Pan American prepared the reserve or resource estimates under the standards adopted under the U.S. Rules.



## CORPORATE STRUCTURE

---

### Incorporation

Pan American is the continuing corporation of Pan American Energy Corporation, which was incorporated under the Company Act (British Columbia) on March 7, 1979. Pan American underwent two name changes, the last occurring on April 11, 1995, when the present name of Pan American Silver Corp. was adopted. Amendments to the constating documents of Pan American to that date had been limited to name changes and capital alterations. In May 2006, we amended our memorandum and articles in connection with Pan American's required transition under the Business Corporations Act (British Columbia). In January 2019, we obtained shareholder approval to increase our authorized share capital from 200,000,000 to 400,000,000 common shares without par value ("Common Shares"), and in May 2023, we obtained shareholder approval to increase our authorized share capital from 400,000,000 to 800,000,000 Common Shares.

As of the date of this AIF, Pan American's head office is situated at 2100-733 Seymour Street, Vancouver, British Columbia, Canada, V6B 0S6 and our registered and records offices are situated at 1200 Waterfront Centre, 200 Burrard Street, Vancouver, British Columbia, Canada, V7X 1T2. Our website is [www.panamericansilver.com](http://www.panamericansilver.com).

### Capital Structure

Pan American's authorized share capital consists of 800,000,000 Common Shares and there were 364,659,809 Common Shares issued and outstanding as at December 31, 2023. The holders of Common Shares are entitled to: (i) one vote per Common Share at all meetings of shareholders; (ii) receive dividends as and when declared by the directors of Pan American; and (iii) receive a pro rata share of the assets of Pan American available for distribution to the shareholders in the event of the liquidation, dissolution or winding-up of Pan American. There are no pre-emptive, conversion or redemption rights attached to the Common Shares.

In connection with Pan American's acquisition of all of the issued and outstanding common shares in the authorized share capital of Yamana on March 31, 2023 (the "Yamana Acquisition"), following the sale by Yamana of its Canadian assets to Agnico Eagle Mines Limited, by way of a plan of arrangement (the "Arrangement") under the *Canada Business Corporations Act*, Pan American issued 153,758,280 Common Shares to the former shareholders of Yamana as part of the consideration payable under the Arrangement. More details about the Arrangement can be found below under the heading "Business of Pan American".

In February 2019, Pan American acquired Tahoe (the "Tahoe Acquisition") and issued 313,887,490 contingent value rights (each, a "CVR") to Tahoe shareholders. Each CVR has a term of ten years and is exchangeable for 0.0497 of a Common Share upon first commercial shipment of concentrate following restart of operations at the Escobal mine. The CVRs are not entitled to any voting or dividend rights, and the CVRs do not represent any equity or ownership interest in Pan American or any of its affiliates.

### Credit Rating

In March 2023, Pan American received an investment grade rating by both Moody's Investors Service ("Moody's") and S&P Global Ratings ("S&P Global"). With respect to Moody's, Pan American was assigned a long-term issuer rating of Baa3, and S&P Global assigned a long-term issuer rating of BBB- to Pan American. The same rating was provided in respect of the Senior Notes, noting that Pan American is a guarantor of such Senior Notes. The ratings took into account a variety of matters relating to Pan American, including business risk, financial risk, and other matters in reaching its conclusions, including making certain assumptions.

Moody's long-term credit ratings are on a rating scale that ranges from Aaa to C, which represents the range from highest to lowest quality of such securities rated. Moody's "Baa" rating is the fourth highest rating of nine rating categories. Obligations rated "Baa" are judged to be medium-grade and subject to moderate credit risk and as such may possess certain speculative characteristics. Moody's appends numerical modifiers from 1 to 3 to its long-term ratings, which indicate where the obligation ranks within its generic rating category. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category, the modifier 2 indicates a midrange ranking and the modifier 3 indicates a ranking in the lower end of that generic rating category.

With respect to their initial rating of Pan American, Moody's identified certain factors or considerations as giving rise to unusual risks associated with the credit rating of Pan American. These include: its smaller scale when compared to other investment grade peers; Pan American's concentration in gold and silver and the related sensitivity to precious metal prices and price volatility; exposure to Latin America with elevated geopolitical risk; and the high-cost nature of the standalone gold mining operations. Moody's further indicated that the rating could be negatively affected by a deterioration in operating performance or liquidity, if the adjusted debt to EBITDA ratio is sustained above 2.5x, if free cash flow remains negative, if the cash flow less dividends to debt ratio is maintained below 30% and EBIT margin is below 10% on a standard basis.

S&P Global’s long-term credit ratings are on a rating scale that ranges from AAA to D, which represents the range from highest to lowest quality of such securities rated. S&P Global’s “BBB” rating is the fourth highest rating of 10 major rating categories. Ratings AAA to BBB- are considered investment grade, and BB+ to D are considered speculative grade. A “BBB” rating indicates that the obligor has adequate capacity to meet its financial commitments but is more subject to adverse economic conditions. S&P uses “+” or “-” designations to indicate the relative standing of securities within a particular rating category.

In providing its initial rating, S&P Global identified a number of factors and considerations that could have an impact Pan American’s rating. For example, S&P Global indicated that their rating could be negatively impacted if the adjusted debt to EBITDA ratio approaches 3x, noting that the following items could affect that ratio: lower-than-forecast precious metal prices; negative conclusion from the permitting process at Escobal resulting in the mine not likely returning to operations in 2024; and increased spend on capital expenditure projects, especially in a lower price environment. S&P Global also noted that operating cash flow generation of precious metal producers, such as Pan American, is sensitive to swings in underlying commodity prices and such swings would likely result in high-volatility cash flow and leverage metrics, and that operating cash flow generation is an important component in the ratings analysis for Pan American. It was further noted that Pan American’s relatively conservative approach to managing its balance sheet and financial policy were key credit considerations, and that environmental and social risks were moderately negative considerations.

Pan American pays an annual fee to Moody’s and S&P Global for the provision of a credit rating. No other fees were paid to Moody’s or S&P Global in 2023.

Ratings are intended to provide investors with an independent view of credit quality. A credit rating or a stability rating is not a recommendation to buy, sell or hold securities and does not address the market price or suitability of a specific security for a particular investor. Credit ratings may not reflect the potential impact of all risks on the value of securities. In addition, real or anticipated changes in the rating assigned to a security will generally affect the market value of that security. Investors cannot be assured that a rating will remain in effect for any given period of time or that a rating will not be revised or withdrawn entirely by a rating agency in the future. Each rating should be evaluated independently of any other rating. The foregoing summary of considerations from the Moody’s and S&P Global ratings are not exhaustive and the reports from Moody’s and S&P Global should be consulted for their full analysis.

## **Subsidiaries**

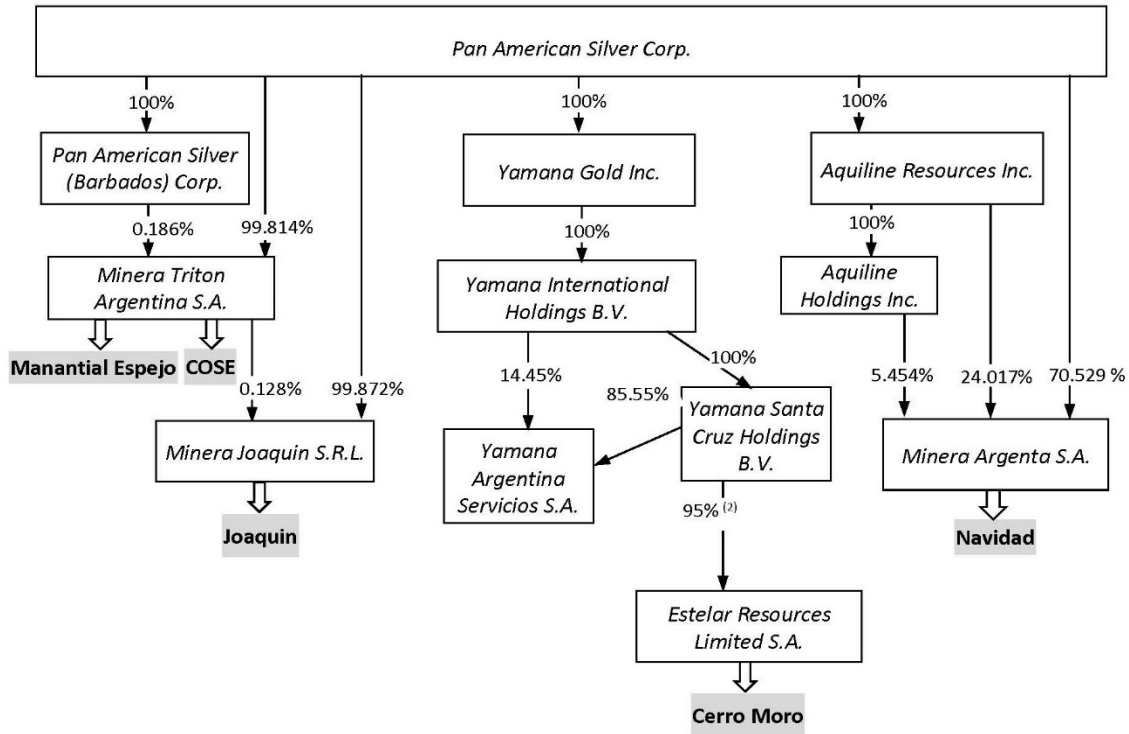
A significant portion of our business is carried on through various subsidiaries. The table below lists our significant subsidiaries, or in some cases subsidiaries that hold interests in significant subsidiaries, and their jurisdiction of organization, and the chart following shows the structure of our organization as it relates to the countries of our mines. Not all of our operating mines are material properties for the purposes of NI 43-101. This information is provided as at December 31, 2023.

Name of Subsidiary	Jurisdiction
Tahoe Resources Ltd.	Alberta
0799714 B.C. Ltd.	British Columbia
6855237 Canada Inc.	Canada
Corner Bay Silver Inc. ("Corner Bay")	Canada
Lake Shore Gold Corp. ("Lake Shore")	Canada
Yamana Gold Inc.	Canada
Aquiline Resources Inc. ("Aquiline")	Ontario
Minefinders Corporation Ltd. ("Minefinders")	Ontario
Estelar Resources Limited S.A.	Argentina
Minera Triton Argentina S.A.	Argentina
Minera Argenta S.A.	Argentina
Minera Joaquín S.R.L.	Argentina
Yamana Argentina Servicios S.A.	Argentina
Pan American Silver (Barbados) Corp.	Barbados
Aquiline Holdings Inc.	Barbados
PASCAP Insurance (Barbados) Ltd.	Barbados
Escobal Resources Holdings Ltd.	Barbados
Yamana Gold (Barbados) Inc.	Barbados
Jacobina Mineração e Comércio Ltda. ("JMC")	Brazil
Yamana Desenvolvimento Mineral Ltda.	Brazil
Pan American Silver (Bolivia) S.A. ("PASB")	Bolivia
Minera Florida Ltda. ("Florida")	Chile
Minera Meridian Ltda. ("Minera Meridian")	Chile
Minera Yamana Chile SpA	Chile
Pan American Silver Guatemala, S.A. ("PASG"), formerly Minera San Rafael S.A.	Guatemala
PASMEX, S.A. de C.V.	Mexico
Plata Panamericana S.A. de C.V. ("Plata Panamericana")	Mexico
Compañía Minera Dolores, S.A. de C.V.	Mexico
Minera Minefinders S.A. de C.V.	Mexico
Pan American (Netherlands) B.V.	Netherlands
Yamana International Holdings B.V.	Netherlands
Yamana Jacobina Holdings B.V.	Netherlands
Yamana Santa Cruz Holdings B.V.	Netherlands
Pan American Silver (Peru) S.A.C.	Peru
Pan American Silver Huaron S.A.	Peru
Tahoe Resources Peru S.A.C.	Peru
Shahuindo S.A.C. ("Shahuindo SAC")	Peru
La Arena S.A.	Peru

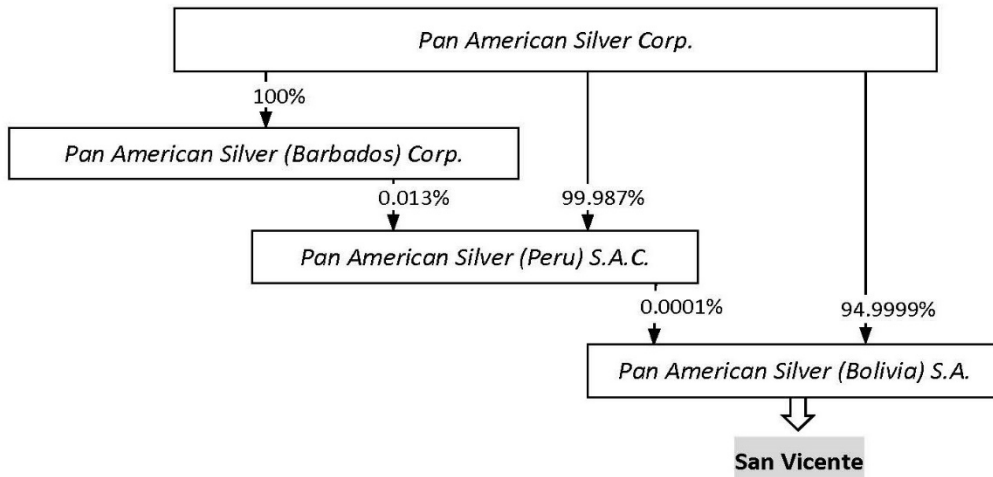
## Corporate Organization by Material Mineral Property Location

The following charts depict the corporate organizational structure of our significant subsidiaries as they relate to the country of our material mineral properties as at December 31, 2023 and identify the main property asset interests (including non-material properties, as applicable) held by the respective entities<sup>1</sup>.

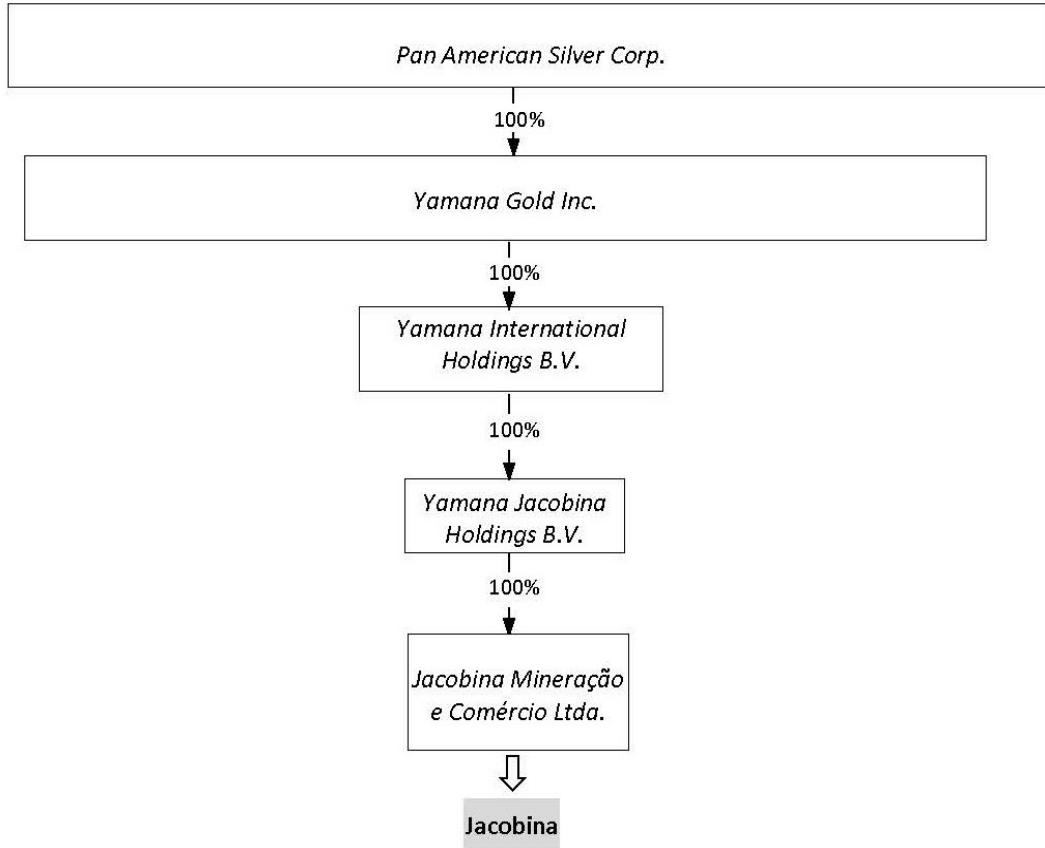
### Argentina Properties



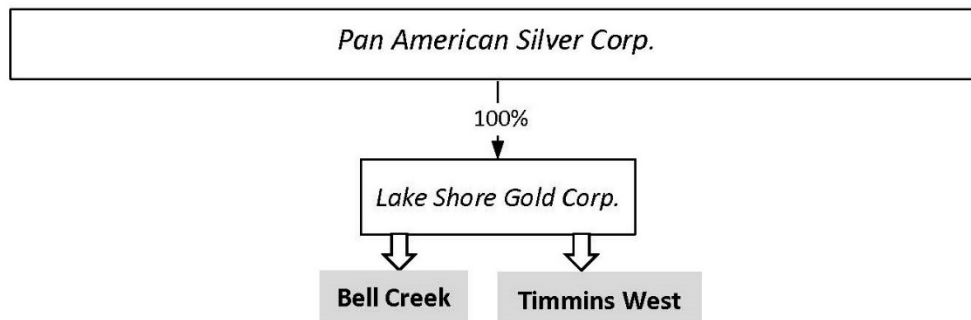
### Bolivia Properties



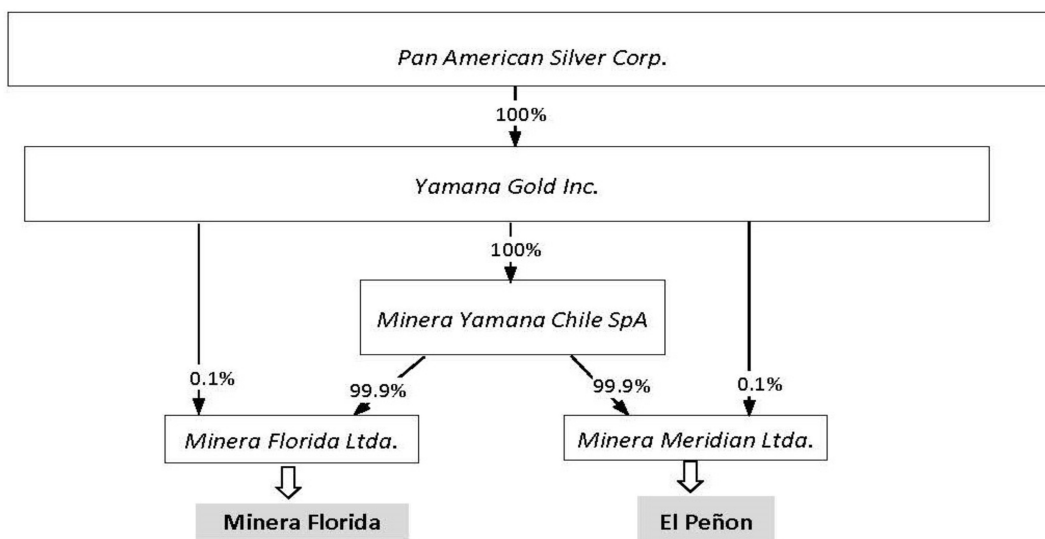
**Brazil Properties**



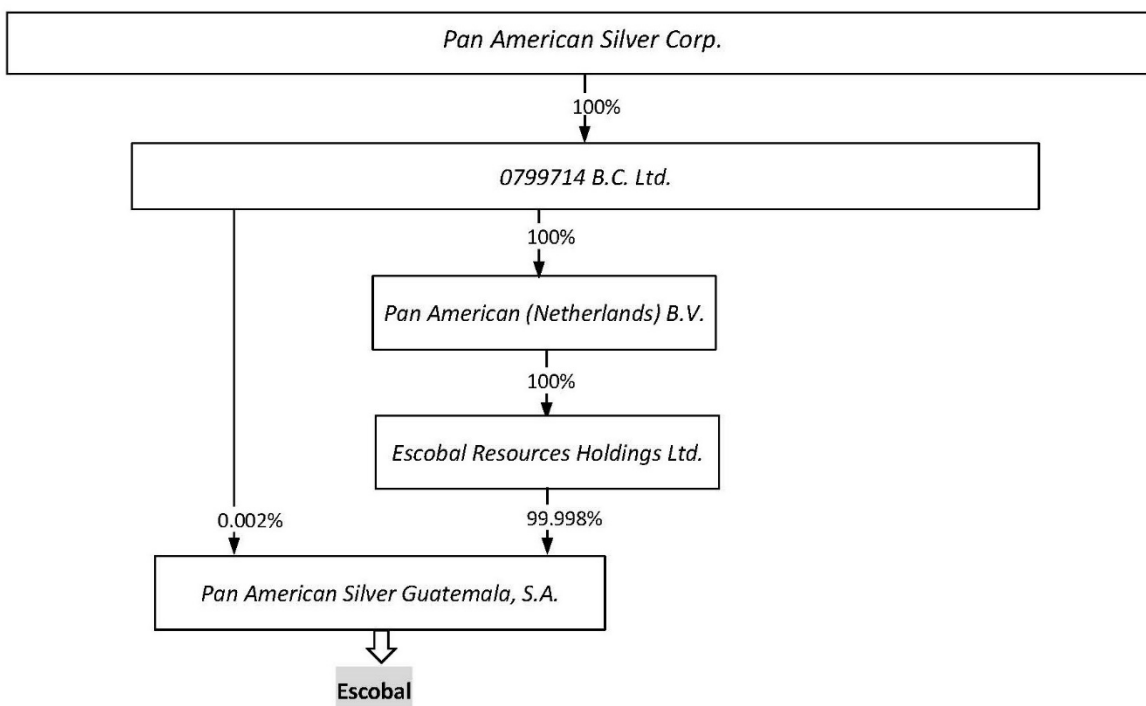
**Canada Properties**



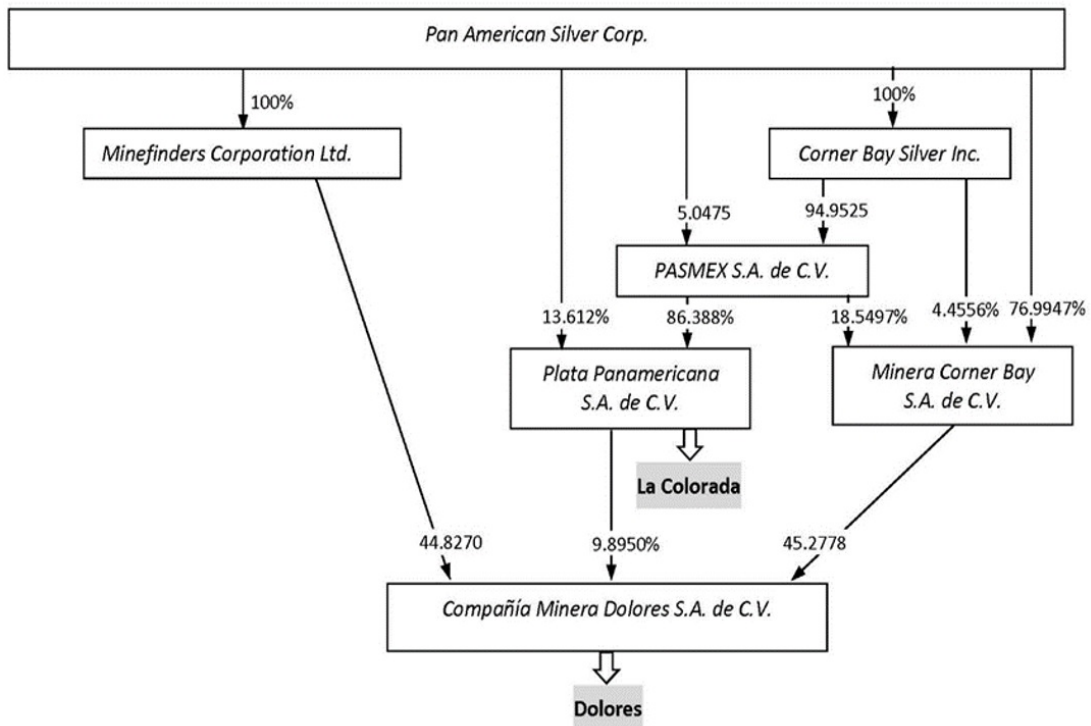
**Chile Properties**



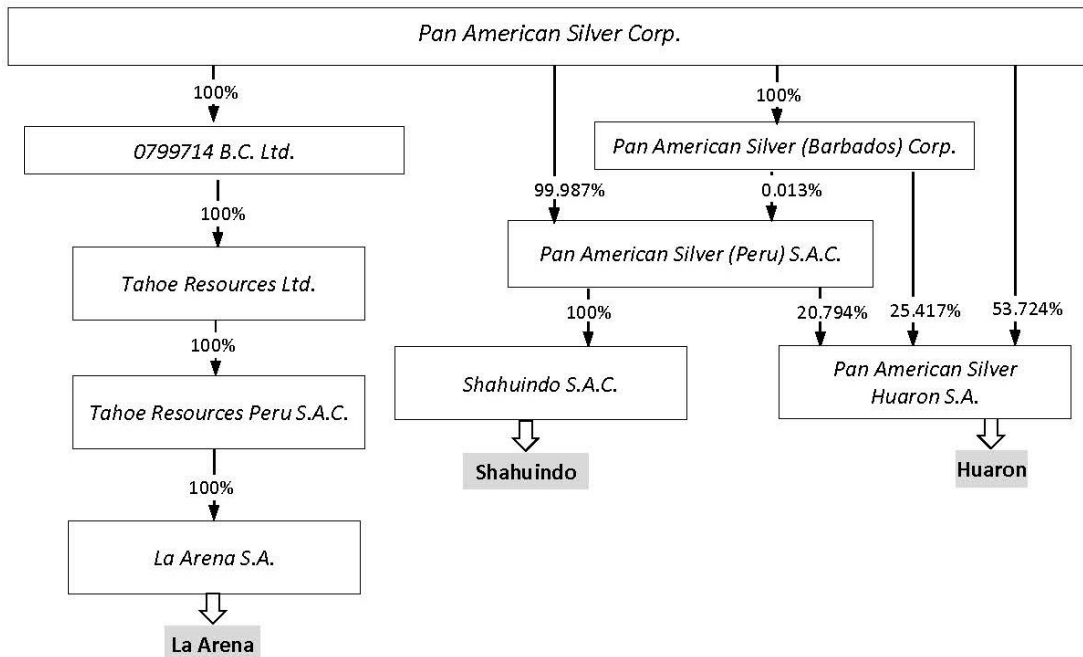
**Guatemala Properties**



**Mexico Properties**



**Peru Properties:**



**Notes:**

- 1 In some jurisdictions in which we operate, laws require that a company operating mineral properties must have more than one shareholder. For those jurisdictions, a nominal interest may be held by an individual or other affiliated entity and this may not be represented on the charts. Percentages shown indicate ownership of common shares and other voting interests and do not include holdings of investment shares in Peru or other non-voting shares. Percentages are rounded (in most cases, to a maximum of three decimal places). Minority interests of less than 0.0005% are therefore not shown.
- 2 Fomento Minero de Santa Cruz S.E. holds subordinated preferred shares equal to 5% with certain rights in respect of future dividends.

## GENERAL DEVELOPMENT OF THE BUSINESS

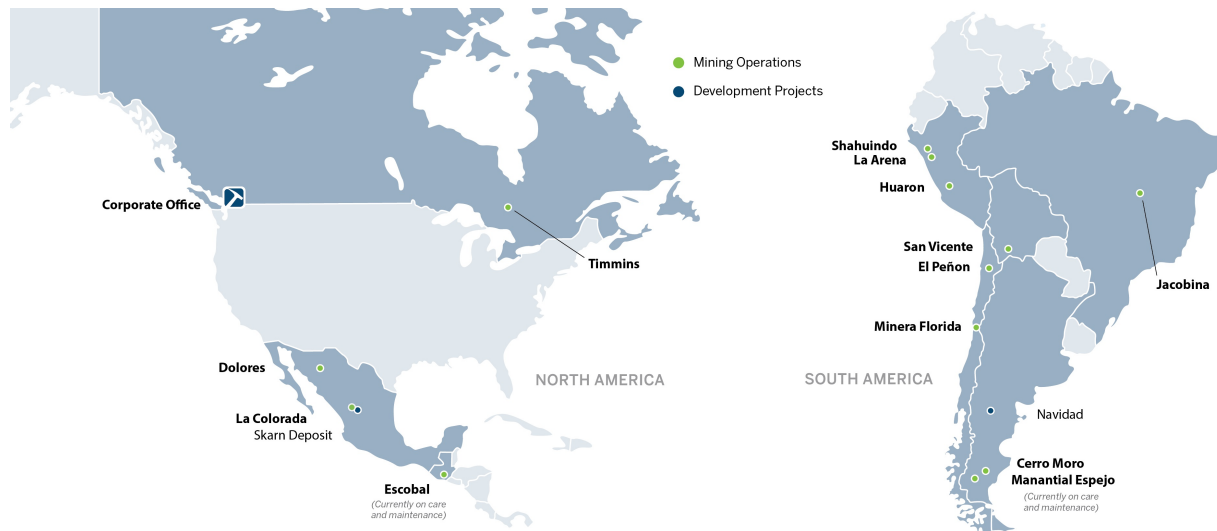
### Business of Pan American

We are principally engaged in the operation and development of, and exploration for, silver and gold producing properties and assets. Our principal products are silver and gold, although we also produce and sell zinc, lead, and copper. As at December 31, 2023, we operated mines and developed mining projects in Mexico, Peru, Canada, Argentina, Brazil, Chile and Bolivia, and had control over non-producing silver assets in each of those jurisdictions, in addition to Guatemala and the United States.

Pan American completed the Yamana Acquisition on March 31, 2023, acquiring four operating mines in Chile, Argentina and Brazil, as well as interests in development projects in Argentina and Chile, including a 56.25% interest in the Minera Agua Rica Alumbrera project (the "MARA Project") in Argentina. As required under Part 8 of National Instrument 51-102 – Continuous Disclosure Obligations ("NI 51-102"), Pan American filed a Form 51-102F4 Business Acquisition Report dated June 9, 2023, in respect of the Yamana Acquisition. Pan American subsequently divested its interests in the MARA Project to Glencore International AG on September 20, 2023. Pan American also divested its interest in the Morococha mine in Peru and the Agua de la Falda project (and Jeronimo mine) in Chile in 2023.

With the completion of the Tahoe Acquisition in February 2019, we acquired four operating mines in Peru and Canada, as well as the Escobal mining property and facilities in Guatemala. The Escobal mine is currently not operating primarily as a result of the suspension of its mining license in July 2017, pending, among other things, the successful completion of an ILO 169 consultation process with Xinka communities which is currently underway and which is being led by Guatemala's Ministry of Energy and Mines (the "Guatemala MEM"). In addition to supporting the consultation process, we believe that it is important to engage with local communities and the Xinka people in an effort to build long-lasting, trusting relationships for the benefit of all stakeholders.

The following map depicts the location of our operating mines and certain of our exploration and non-operating projects as at December 31, 2023.



### Corporate Strategy and Objectives

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



The key objectives of our strategy are to:

Strategy Objective	Implementation
<b>Increase production</b>	<p>Our long-term growth over the years has been accomplished through a combination of acquisition, exploration, development and expansion efforts. The Tahoe Acquisition in February 2019 and the Yamana Acquisition in March 2023 contributed significantly to our production, particularly gold.</p> <p>In 2023, we produced 20.4 million ounces of silver, which was more than the 18.5 million ounces produced in 2022. Gold production was 882,900 ounces, significantly more than the 552,500 ounces produced in 2022.</p>
<b>Increase mineral reserves and mineral resources</b>	<p>Historically, we have achieved increases in our mineral reserves and mineral resources through exploration and acquisitions. Pan American invests in mine and near-mine exploration programs throughout the silver and gold price cycles and to replace and add to our mineral reserves and mineral resources.</p> <p>Effective June 30, 2023, our proven and probable silver and gold mineral reserves were approximately 486.8 million ounces and 7.7 million ounces, respectively, as compared to the 514.9 million ounces of silver and 3.6 million ounces of gold as at June 30, 2022. Our measured and indicated mineral resources (excluding mineral reserves) were approximately 945.0 million ounces of silver and 16.1 million ounces of gold effective the end of June 2023, compared to 933.0 million ounces of silver and 8.1 million ounces of gold compared to our June 30, 2022, estimates. The foregoing estimates do not reflect the increase to the indicated mineral resources estimate for the La Colorada skarn project effective December 18, 2023, which saw increases to the indicated silver mineral resources from 94.4 million ounces of silver to 183.0 million ounces, nor does it include the MARA Project, the Morococha mine, or the Jeronimo project, all of which were disposed of in 2023.</p> <p>Please refer to the complete mineral resource and mineral reserve information for each of our material properties under the heading “Mineral Reserve and Mineral Resource Estimate Information” in this AIF, and to the “Reserves &amp; Resources” page of our website at <a href="http://www.panamericansilver.com">www.panamericansilver.com</a> for additional information.</p>
<b>Acquire additional silver properties</b>	<p>We actively investigate and evaluate strategic opportunities to acquire promising silver production, development and exploration properties primarily in those jurisdictions where we are presently active, while focusing on adding low-cost production and long-life reserves.</p> <p>In March 2023, we completed the Yamana Acquisition and Pan American acquired four operating mines in Chile, Argentina and Brazil as well as development projects in Argentina and Chile.</p> <p>In February 2019, we acquired all of the issued and outstanding shares of Tahoe pursuant to the Tahoe Acquisition. Among other assets, Tahoe owned two mines in each of Peru and Canada, as well as the Escobal mine in Guatemala. Operations at the Escobal mine are currently suspended pending the completion of an ILO 169 consultation process and further engagement with local communities and Indigenous peoples, as well as the renewal of certain other permits.</p> <p>In addition to the Yamana Acquisition and the Tahoe Acquisition, we acquired the Dolores mine and the La Bolsa property by virtue of acquiring Minefinders in 2012, and the Navidad property pursuant to our acquisition of Aquiline in 2010.</p> <p>Please refer to the section of this AIF entitled “Risks Related to Our Business” starting on page 56 for more information about the risks relating to our business and our mining properties, particularly with respect to the Escobal mine, and to our website at <a href="http://www.panamericansilver.com">www.panamericansilver.com</a> for additional information.</p>
<b>Maintain strong financial performance from mining operations</b>	<p>In an effort to ensure we continue to have a strong and prosperous business, financial performance is monitored against targets for operating earnings and cash flow from operations, as well as against operating measures such as production and cash costs.</p>

---

**Continue to be a responsible company,  
committed to sustainable development**

We are committed to operating our business in accordance with the highest standards of governance and ethics, and the principles of sustainable development. We also place a high priority and particular emphasis on the health and safety of our personnel. We have operations in a number of countries and across diverse cultures that have the potential to both positively and negatively impact their host communities and nearby populations. Our goal is to minimize the negative impacts and maximize the benefits garnered to local populations, while at the same time achieving success from a business perspective. We conscientiously strive to operate within a framework of moral principles and values and to engage and interact regularly, and in an open and honest way, with governments, shareholders, employees and other stakeholders. We have adopted board-level corporate policies that formalize how we must conduct our business and interact with stakeholders and others. These policies include our: Global Code of Ethical Conduct, Global Anti-Corruption Policy, Environmental Policy, Social Sustainability Policy, Global Human Rights Policy, and Health and Safety Policy. We have also adopted a Supplier Code of Conduct setting out the expectations we have of our suppliers.

We are implementing the Towards Sustainable Mining (“TSM”) protocols and frameworks of the Mining Association of Canada (“MAC”), a world-class management standard designed to enhance our community engagement processes, drive industry-leading environmental practices and reinforce our commitment to the safety and health of our employees and surrounding communities. By implementing TSM at our operations within and outside of Canada, we are voluntarily exceeding MAC’s membership requirements and setting a consistently high performance standard across all of our operating jurisdictions.

As part of our commitment to driving global sustainable development and contributing to the United Nations Sustainable Development Goals, we became signatories of the United Nations Global Compact in 2020 and we formed a high-level and multidisciplinary group to guide the implementation and communication of our progress in the 10 principles established in the UN Global Compact. We also became members of the World Gold Council in 2023, an organization that, among other things, advocates for responsible gold production and helps shape policies for sustainable gold mining among its members and across the industry.

We are aware that our business is in many ways dependent on various stakeholders, and we view establishing relationships of mutual trust and respect as important. By building such relationships and conducting ourselves in a transparent manner, we can further the exchange of information, address specific concerns of stakeholders and work cooperatively and effectively towards achieving mutual goals. We report annually on our sustainability performance in accordance with the Global Reporting Initiative Standards and have begun to align our reporting with the Sustainability Accounting Standards Board (“SASB”) and Taskforce on Climate-related Financial Disclosures (“TCFD”) reporting frameworks. Our current TCFD disclosure for the year-ended 2022 has been incorporated into our 2022 Sustainability Report and is available on Pan American’s website at [www.panamericansilver.com](http://www.panamericansilver.com), and future reports will similarly be posted to our website.

---

Note:

- 1 Cash Costs and AISC are non-GAAP financial measures and do not have standardized meanings prescribed by IFRS. For additional information, please see “Non-GAAP Measures” on page 2 of this AIF.

## Key Developments Over the Last Three Financial Years

Year	Key Developments
2023	<ul style="list-style-type: none"> <li>• Completed the Yamana Acquisition, resulting in the addition of four producing mines into Pan American's portfolio which are expected to contribute significantly to our silver and gold production.</li> <li>• Transferred our listing of common shares in the United States from the NASDAQ Global Select Market to the New York Stock Exchange (the "NYSE").</li> <li>• Announced the results of the PEA completed with respect to the La Colorada skarn project, including increases to the estimated mineral resources of the project.</li> <li>• Produced 20.4 million ounces of silver and a Company record 882.9 thousand ounces of gold, led by silver production from the La Colorada vein mine (the "La Colorada mine") of 4.4 million ounces and gold production of 147.8 thousand ounces from the Jacobina mine in the nine months since its acquisition by us. The annual production of gold, in particular, was significantly enhanced by the operating mines acquired through the Yamana Acquisition, with the production from these mines being included in our production profile beginning on March 31, 2023.</li> <li>• Sold Pan American's interests in the MARA Project in Argentina, the Agua de la Falda project in Chile, and the Morococha mine in Peru, as well as certain non-controlling equity interests, which resulted in significant cash proceeds being paid to Pan American, as well as retaining certain mineral production royalties.</li> <li>• We temporarily suspended operations for approximately 11 days at the La Colorada mine due to security concerns at the mine site and the surrounding area.</li> <li>• We successfully amended the Facility (as defined below) to both increase the available credit, as well as extend the term of the Facility.</li> <li>• We obtained an investment grade credit rating from Moody's and S&amp;P Global in connection with the Senior Notes.</li> <li>• We increased our authorized capital to 800,000,000 Common Shares, which will allow greater flexibility for further business development opportunities as well as other potential strategic initiatives.</li> <li>• At La Colorada mine, we completed nearly 30,000 metres of exploration drilling on the vein structures.</li> <li>• The La Colorada skarn project drilling continued to infill and extend the mineralisation on the 902 ore body. The new mineral resource estimate released with the PEA at the end of the year increased by 14% with 240,000 metres included.</li> <li>• The sinking of a new concrete-lined ventilation shaft above the skarn deposit was largely completed by the end of 2023, with the installation of extraction fans expected by mid-2024.</li> <li>• We completed more than 80,000 metres of drilling over the year at Jacobina.</li> </ul>
2022	<ul style="list-style-type: none"> <li>• Announced the proposed Arrangement between Pan American, Yamana and Agnico Eagle, which is expected to be transformative for Pan American in terms of scale, provide meaningful increases in our production of gold and silver, increase our financial flexibility, and enhance our ability to advance internal growth projects, such as the La Colorada skarn project.</li> <li>• Produced 18.5 million ounces of silver and 552,500 ounces of gold. Despite ventilation issues at the La Colorada mine, it continued to lead our silver production with 5.9 million ounces of silver produced in 2022. Huaron and Manantial Espejo followed with 3.7 million and 3.5 million ounces respectively. Shahuindo led gold production with 151,400 ounces of gold produced, followed closely by the Dolores mine and the Timmins West and Bell Creek mines (combined) with 136,900 and 134,600 ounces of gold produced, respectively.</li> <li>• We successfully completed 77,745 metres of underground and surface drilling on the La Colorada skarn project during 2022, discovering and extending the high-grade silver mineralization zone located to the west of the main skarn resource.</li> <li>• We released an updated mineral resource estimate on the La Colorada skarn project in September 2022 assuming a sub level caving underground mining method and updated the mineral resource estimate.</li> <li>• Completed 25,000 metres of drilling at Huaron in 2022. Successful exploration drilling to the southeastern portion of the deposit at shallower depths has identified new structures.</li> <li>• The La Colorada mine had a very successful year for exploration with almost a 50% increase in the inferred mineral resource for silver ounces while replacing 108% of the mined production with new mineral reserves. The increase in inferred mineral resources came from the Candelaria mine and the discovery of new veins as well as along strike and down dip projection of the known veins and mineralisation.</li> <li>• The pre-consultation phase of the ILO 169 consultation process relating to the Escobal mine in Guatemala was concluded and the process advanced to the consultation phase.</li> <li>• We placed the Morococha operation on care and maintenance and began exploring strategic alternatives for it.</li> <li>• As part of our continued commitment to ESG practices and responsibilities, in May 2022 we released our 2030 greenhouse gas emissions reduction goal to reduce our emissions by 30% from the 2019 baseline by 2030.</li> </ul>

Year	Key Developments
2021	<ul style="list-style-type: none"> <li>COVID-19 continued to have a significant impact on our mining activities. Most notably, the production rates of our operations and progress on capital projects was affected by the pandemic. The pandemic continued to cause difficulties and hardship in the communities in which we operate.</li> <li>Produced 19.2 million ounces of silver and 579,300 ounces of gold. The La Colorada mine continued to lead our silver production with 5.2 million ounces of silver produced in 2021. Huaron and Manantial Espejo followed with 3.5 million and 3.2 million ounces respectively. Dolores led gold production with 160,100 ounces of gold produced, followed closely by the Shahuindo mine and the Timmins West and Bell Creek mines (combined) with 134,000 and 133,800 ounces of gold produced, respectively.</li> <li>At the La Colorada mine, we successfully cleared a blockage that formed during the commissioning of a primary ventilation raise. This relieved the ventilation-driven constraints that have impacted operations since late 2019 and mine development, mining rates and throughput rates have increased as a result. Multi-year ventilation infrastructure projects are being undertaken in parallel to upgrading and expanding existing underground mine ventilation infrastructure to further improve overall mine ventilation performance and ensure the long-term reliability of this critical infrastructure.</li> <li>We successfully completed 72,500 metres of underground and surface drilling on the La Colorada skarn increasing the footprint of the mineralisation from 500 metres by 600 metres to 1,400 metres by 650 metres.</li> <li>As part of our commitment to ESG practices and responsibilities, in August 2021 we amended and extended our \$500 million corporate credit facility into a sustainability-linked revolving credit facility (the "Facility"). The Facility features a pricing mechanism that allows for adjustments on drawn and undrawn balances based on third-party sustainability performance ratings, which aligns our ESG performance to our cost of capital.</li> </ul>

## Outlook for 2024

In 2024, we expect to produce between 21.0 and 23.0 million ounces of silver and between 880,000 and 1,000,000 ounces of gold, with Silver Segment Cash Costs of \$11.70 to \$14.10 per ounce of silver and Gold Segment Cash Costs of \$1,165 to \$1,260 per ounce of gold, and Silver Segment AISC of between \$16.00 and \$18.50 per ounce of silver and Gold Segment AISC of \$1,475 and \$1,575 per ounce of gold. The Escobal mine is assumed to remain on care and maintenance during 2024, as the Guatemala MEM conducts the court-mandated ILO 169 consultation process. Mining and processing activities at Manantial Espejo largely concluded at the end of 2022 and the operation was placed on care and maintenance in January 2023.

In 2024, we plan on incurring project capital expenditures of approximately \$80.0 million to \$85.0 million, relating primarily to: (i) the completion of a tailings filtration plant and filtered tailings stack at Huaron, (ii) expenditures at the La Colorada skarn project for infill and exploration drilling, engineering work, completion of dewatering and geological studies, and investment to advance longer-term infrastructure, (iii) completion of the expansion of Jacobina's plant facility infrastructure and advancing a mine optimization study, and (iv) initial investments at Timmins for the construction of a new tailings storage facility and the completion of the paste fill plant at Bell Creek.

We expect to spend approximately \$295.0 to \$310.0 million on sustaining capital in 2024, largely on waste dumps, leach pads and tailings storage facilities, exploration, site infrastructure and mine equipment overhauls and replacements.

Exploration and project development expense in 2024 is expected to total approximately \$10.0 million to \$12.0 million for regional exploration, property holding costs and project development expenses, including approximately 27,000 metres of drilling. Expenditures relating to near-mine exploration and mineral reserve replacement are included in sustaining and project capital estimates and are anticipated to total: (i) \$57.5 million for 327,000 metres of near-mine exploration drilling for mineral reserve replacement and (ii) \$4.5 million for 8,000 metres of project drilling on the La Colorada skarn project.

In 2024, we also expect to spend \$25.0 million to \$30.0 million for care and maintenance at Escobal, Manantial Espejo, and Navidad.

Annual corporate general and administrative expense, including share-based compensation, is forecast to be between \$70.0 million and \$75.0 million in 2024, which are inclusive of the realized and expected synergies obtained in connection with the Yamana Acquisition.

Cash Costs and AISC are non-GAAP financial measures and do not have a standardized meaning prescribed by IFRS. For additional information, please see "Non-GAAP Measures" on beginning on page 2.

Please refer to the section of this AIF entitled "Risks Related to Our Business" starting on page 56 for more information about the risks relating to our business and our mining properties.

## NARRATIVE DESCRIPTION OF THE BUSINESS

### Principal Products and Operations

Our principal products and sources of sales are silver and gold doré and silver bearing zinc, lead, and copper concentrates. In 2023, the La Colorada, Cerro Moro, Dolores, Huaron, Jacobina, El Peñon, Minera Florida, Shahuindo, La Arena, Timmins West, Bell Creek, Manantial Espejo and San Vicente mines accounted for all of our production of concentrates and doré.

Our approximate revenue by product category for the financial years ended December 31, 2023 and December 31, 2022 was as follows:

Product Revenue	2023	2022
	(\$millions)	(\$millions)
Silver and Gold Doré	1,954.4	1,106.8
Zinc Concentrate	83.2	98.3
Lead Concentrate	163.5	167.7
Copper Concentrate	54.6	65.1
Silver Concentrate	60.4	56.8
<b>Total</b>	<b>2,316.1</b>	<b>1,494.7</b>

Consolidated production from the Silver Segment mines for the year ended December 31, 2023, was as follows:

SILVER SEGMENT MINES	La Colorada	Cerro Moro <sup>3</sup>	Huaron	San Vicente <sup>1</sup>	Manantial Espejo <sup>2</sup>	Total <sup>6</sup>
Tonnes Milled <sup>4</sup>	537,100	315,100	943,700	372,200	10,000	2,178,100
Grade						
Silver - g/t	277	377	143	271	205	
Gold - g/t	—	8.82	—	—	2.13	
Zinc %	1.64 %	—	2.49 %	3.11 %	—	
Lead %	0.92 %	—	1.66 %	0.33 %	—	
Copper %	—	—	0.61 %	0.21 %	—	
Production						
Ounces Silver <sup>4</sup>	4,392,000	3,546,800	3,608,300	2,977,600	190,700	14,715,400
Ounces Gold <sup>4</sup>	2,300	84,600	1,100	100	1,700	89,800
Tonnes Zinc <sup>5</sup>	7,370	—	18,490	9,700	—	35,560
Tonnes Lead <sup>5</sup>	4,220	—	12,640	1,020	—	17,880
Tonnes Copper <sup>5</sup>	80	—	4,360	600	—	5,030

**Notes:**

- 1 San Vicente data represents our 95% interest in mine production based on ownership of the operating entity.
- 2 Manantial Espejo data includes production from the COSE and Joaquin mines.
- 3 Reflects production from March 31<sup>st</sup>, 2023, to December 31<sup>st</sup>, 2023, following the completion of the Yamana Acquisition on March 31<sup>st</sup>, 2023.
- 4 Rounded to the nearest hundred.
- 5 Rounded to the nearest ten.
- 6 Totals may not match due to rounding.

Consolidated production from the Gold Segment mines for the year ended December 31, 2023, was as follows:

<b>GOLD SEGMENT MINES</b>	<b>Jacobina<sup>1</sup></b>	<b>El Peñon<sup>1</sup></b>	<b>Timmins<sup>2</sup></b>	<b>Shahuindo</b>	<b>La Arena</b>	<b>Minera Florida<sup>1</sup></b>	<b>Dolores</b>	<b>Total<sup>5</sup></b>
Tonnes Milled <sup>3</sup>	2,306,800	1,029,100	1,573,700	12,519,400	12,586,300	760,300	7,616,900	38,392,500
Grade								
Silver - g/t	—	99	—	7	1	17	18	
Gold - g/t	2.08	3.05	2.70	0.48	0.31	3.15	0.57	
Zinc %	—	—	—	—	—	0.67%	—	
Lead %	—	—	—	—	—	0.12%	—	
Copper %	—	—	—	—	—	—	—	
Production								
Ounces Silver <sup>3</sup>	—	2,906,100	16,200	275,500	47,100	282,600	2,194,500	5,722,000
Ounces Gold <sup>3</sup>	147,800	95,700	132,900	140,100	97,100	72,400	107,100	793,100
Tonnes Zinc <sup>4</sup>	—	—	—	—	—	3,220	—	3,220
Tonnes Lead <sup>4</sup>	—	—	—	—	—	860	—	860
Tonnes Copper <sup>4</sup>	—	—	—	—	—	—	—	—

**Notes:**

- 1 Reflects production from March 31<sup>st</sup>, 2023, to December 31<sup>st</sup>, 2023, following the completion of the Yamana Acquisition on March 31<sup>st</sup>, 2023.
- 2 Timmins refers to the Timmins West and Bell Creek mines.
- 3 Rounded to the nearest hundred.
- 4 Rounded to the nearest ten.
- 5 Totals may not add due to rounding.

Additional segmented information is set forth in Note 29 to Pan American's Audited Consolidated Financial Statements for the year ended December 31, 2023, and further information on individual mine performance and other metrics is presented in the 2023 MD&A under the heading "2023 Operating Performance".

### ***Silver and Gold Doré***

Our principal buyers of silver and gold doré produced from our La Colorada, Dolores, Manantial Espejo, Shahuindo, La Arena, Timmins, Jacobina, Cerro Moro, El Peñon and Minera Florida mines, once refined, are international bullion banks and traders, except for the gold produced from La Colorada, which is sold to Maverix Metals Inc. ("Maverix") pursuant to the Maverix Gold Stream (as defined below) discussed on page 26, and the gold production from La Arena which continues to be committed under an off-take agreement with a third-party that provided financing in respect of the original construction of the asset. Additionally, the Company inherited a silver stream arrangement between Yamana and Sandstorm Gold Ltd. ("Sandstorm") whereby Yamana agreed to deliver 20% of the silver produced at Cerro Moro to Sandstorm, up to a maximum of 1.2 million ounces of silver annually, for consideration of 30% of the spot price of silver at the time each ounce of silver is delivered. When 7.0 million ounces of silver have been delivered to Sandstorm, the silver stream will reduce to 9.0% of the silver produced for the life of the mine. Silver and gold doré are delivered to refineries in Canada, Mexico, Germany, Switzerland, and the United States, and subsequently transferred to the accounts of our buyers.

### ***Zinc, Lead, Copper and Silver Concentrates***

The majority of our concentrate production is sold to international concentrate traders and smelters. Concentrate production from the La Colorada mine is delivered to the buyers at various ports and smelting facilities in Mexico. Concentrate production from the Huaron mine is delivered to the buyers at the port of Callao, Peru, with the exception of a portion of the zinc concentrate which is delivered to the Cajamarquilla smelting facility in Peru. Concentrate production from the San Vicente mine is delivered to the buyers at ports in Chile and Peru. Concentrate production from the Minera Florida mine is delivered to the buyers at various ports in Chile. From these ports, the concentrates are shipped by the buyers to various international locations.

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

## Employees and Contractors

At the end of 2023, we had approximately 9,900 employees and about 10,020 contractors. The majority of those employees and contractors were working at our operations in South and Central America, Mexico and Canada. Our Peruvian operations had the largest workforce with approximately 6,900 employees and contractors as of December 31, 2023, while our Mexican operations had approximately 2,720 total employees and contractors. Our Argentina and Brazil operations had approximately 1,570 and 2,820 employees and contractors, respectively. There were approximately 3,810 employees and contractors in Chile, approximately 350 employees and contractors in Guatemala, and approximately 630 employees and contractors in Bolivia. In Canada, our operations had about 990 employees and contractors, and approximately 150 employees worked for Pan American's offices in Vancouver, British Columbia and Toronto, Ontario, at year-end.

Protecting the health, safety and wellbeing of our employees, contractors, suppliers, and community partners where we operate is always a priority for us. We are very pleased to report that there were no fatal accidents to our employees or contractors at our operations and projects in 2023. We achieved a lost time injury frequency of 0.69 per million hours worked and a lost time injury severity of 40, both better than the goals of 0.9 and 525 respectively.

In 2022, we joined the Mining Safety Roundtable, a group of participating companies that are committed to eliminating fatalities and major safety incidents by sharing strategies and best practices to address mining industry hazards and risks. We are advancing several safety initiatives, including working with third-party consultants to incorporate innovative safety concepts, the expansion of our training programs related to the technical abilities of our workforce, focusing on the development of leadership skills, and raising even greater awareness and prioritization of safety. In 2023, we also worked on our Critical Risk Management program that we intend to progressively implement at our operations over the coming years. Please refer to the Sustainability page of our website at [www.panamericansilver.com](http://www.panamericansilver.com) for further information on our health and safety programs.

## Research and Development

While we conduct feasibility work and operational enhancement evaluations in order to improve production processes and exploration and mining operations, we do not, in the normal course, embark on any research and development activities in relation to products or services. Costs associated with this work would usually be expensed as incurred. As such, we did not incur any significant research and development costs during 2021, 2022 or 2023.

## Working Capital and Liquidity Position

As at December 31, 2023, we had cash and cash equivalents and short-term investment balances of \$440.9 million and working capital of \$765.8 million. Total debt of \$801.6 million included \$97.9 million related to lease liabilities, \$20.1 million carrying value of construction loans and two Senior Notes carried at \$683.6 million. The Company repaid a net \$388.5 million of debt, comprised of \$160.0 million net repayment of the Facility, \$14.2 million related to Peruvian construction loans, \$10.5 million related to short-term loans in Brazil and \$205.0 million used to repay, in full, and cancel Yamana's revolving credit facility.

On April 15, 2015, we entered into the Facility, a \$300 million senior secured revolving line of credit available for general corporate purposes, including acquisitions, and originally had a four-year term. We amended the Facility on a number of occasions between 2015 and 2021, primarily to increase availability and extended the term, but also to add sustainability-linked pricing adjustment feature in 2021. The Facility was amended twice in 2023, the first on March 30, 2023, when it was increased from its previous \$500.0 million to \$750.0 million and a temporary term loan feature of \$500.0 million was added to complete the Yamana Acquisition, and the second on November 24, 2023, retaining the \$750 million availability, but with a \$250 million accordion feature and a maturity date of November 24, 2028. As of December 31, 2023, the Company was in compliance with all financial covenants under the Facility, which was undrawn. The borrowing costs under the Facility are based on the Company's credit ratings from Moody's and S&P Global's at either: (i) SOFR plus 1.25% to 2.40% or; (ii) The Bank of Nova Scotia's Base Rate on USD denominated commercial loans plus 0.15% to 1.30%. Under the ratings-based pricing, undrawn amounts under the Facility are subject to a stand-by fee of 0.23% to 0.46% per annum, dependent on Pan American's credit rating and subject to pricing adjustments based on sustainability performance ratings and scores.

Pan American paid an effective interest rate of 5.7% on the Facility during the year ended December 31, 2023. During the year ended December 31, 2023, Pan American made net repayments on the Facility of \$160.0 million.

Upon closing of the Yamana Acquisition, Pan American effectively assumed Yamana's obligations with respect to the Senior Notes. We completed successful consent solicitations with respect to the Senior Notes to amend the reporting covenant of the indenture governing the Senior Notes. As a result, for so long as the Senior Notes are guaranteed by Pan American or any other entity that directly or indirectly controls Yamana, reports of Pan American or of such other controlling entity may be provided in lieu of reports of Yamana.

Our financial position as at December 31, 2023, and the operating cash flows that are expected over the next twelve months lead management to believe that our liquid assets and available credit from the Facility are sufficient to satisfy our 2024 working capital requirements, fund currently planned capital expenditures (including both sustaining and project capital) for existing operations, and to discharge liabilities as they come due. We also remain well positioned to take advantage of further strategic opportunities as they are identified and become available.

## **Environment, Social and Governance**

Safe production, the environmentally sound development and operation of assets, and fostering positive long-term relationships with employees, shareholders, communities, and local governments are fundamental to our strategy.

We have implemented several policies relating to the environment and sustainability, including an Environmental Policy, a Social Sustainability Policy, a Health and Safety Policy, a Human Rights Policy, and an Inclusion and Diversity Policy in which we accept our corporate responsibility to practice environmental stewardship, community engagement and development, and provide a safe, healthy, respectful, open and inclusive workplace for our employees. We also joined the BlackNorth Initiative in June 2020 as part of our commitment to inclusion and diversity and to support the fight against racism. Our Global Code of Ethical Conduct, Global Anti-Corruption Policy, and Supplier Code of Conduct, which are available on our website at [www.panamericansilver.com](http://www.panamericansilver.com), further formalize our commitment to operating ethically. Our directors, officers, executives, and senior management provide annual certifications in connection with the Global Code of Ethical Conduct and Global Anti-Corruption Policy, and we provide related training across our organization. We comply with relevant industry standards, legislation and regulations in the countries where we carry on business.

We believe that it is important to include ESG matters in our corporate goals. Two of the most important areas reflected in our corporate performance goals relate to safety and the environment. Safety is a critical aspect of our business and an important component in our ESG programs, and plays a significant role in our performance. As noted above under the heading “Employees and Contractors”, 2023 was a very successful year for the Company in terms of its safety performance. The Company was able to meet its targets of zero fatalities and achieved low lost-time injury frequency and severity. The Company also had no significant environmental incidents during the year. We have also established corporate goals relating to inclusion and diversity and remain committed to increasing the representation of women in our workforce. We were able to meet our corporate performance goals established in that regard with respect to hiring and retention of women. In addition to our corporate performance goals, we have also established various ESG-related performance indicators and objectives to measure and monitor the performance progress of the key environmental and social sustainability activities at our operations. These are discussed below in more detail.

Through our membership in the Mining Association of Canada, we continued to implement the TSM performance system, a world class management standard designed to help mining companies responsibly drive sustainability performance and manage risk. In 2023, we achieved or maintained Level A or higher for all TSM protocols at all of the operations held prior to the Yamana Acquisition, except for La Arena. We are implementing action plans to achieve Level A or higher in 2024 for the remaining sites.

During 2023, reviews of the social performance of our operations were led by our Senior Vice President of Corporate Affairs and Sustainability, and our Vice President, Social Sustainability, Inclusion and Diversity, reviews of our environmental performance were led by our Vice President, Environment, and our reviews of our tailings facilities were led by our Vice President, Mineral Processing, Tailings and Dams. The reviews typically include in-person inspections of our mine sites and surrounding areas with key operations and corporate team personnel, reviews of monitoring programs and operating procedures, and evaluation of the principal environmental and social issues related to each of these operations. In addition to periodic reviews, detailed environmental audits and sustainability audits are conducted at each operation approximately once every three years.

A key component of our work includes ESG audits, conducted every two or three years, depending on the needs of the operations, and include social sustainability, environmental, and health and safety visits to evaluate our compliance with relevant policies and standards, the effectiveness of our programs, and to drive continuous improvement. Audit content is based on a selection of international and industrial best practices as well as industry and Company standards. We conduct environmental audits to assess the mines’ facilities, operating procedures, and control systems to ensure that procedures comply with regulations, are consistent with our corporate standards, and that potential risks are being managed. Audits of the San Vicente, Dolores, and Timmins operations were completed in 2023. The implementation of the corrective actions required by each audit is monitored and confirmed on an ongoing basis each year. The Huaron, La Arena, Shahuindo, La Colorada, Dolores and Timmins mines’ corrective actions were found to be satisfactory in 2023, however, San Vicente did not meet our goal of 90% corrective actions completed on time. Corrective actions at San Vicente were delayed which affected achievement of the goal, however, the delays did not create any material environmental risks.

We continuously work to verify and confirm that all tailings storage facilities, dams, heap leach pads, and waste stockpiles are robustly designed, built, operated, maintained, and closed in accordance with our



internal standards, the MAC Tailings Management Framework Guidelines and TSM Tailings Management protocol, the Canadian Dam Association (the “CDA”) guidelines, and known global best practices in order to prevent potential incidents. Our tailings storage facilities and water dams are subject to routine inspections, audits, geotechnical and environmental monitoring, annual reviews, and independent reviews to continually improve systems and methods in order to minimize potential harm associated with these long-term facilities. During 2023, tailings management audits and follow-up reviews were undertaken at all tailings facilities located in our operating sites including the newly acquired sites from Yamana. Annual dam safety inspections were conducted in 2023 by the respective third-party Engineer-of-Record, or Designer-of-Record in some cases, on all tailings storage facilities and most of our heap leach pads as well. In addition, our tailings storage facilities have regular independent reviews such as Dam Safety Reviews or equivalent specialized geotechnical assessments conducted by independent third parties following the frequencies recommended by the CDA guidelines. These frequencies recommended by the CDA are based on the designated consequence classification of each tailings facility and represent the minimum recommended requirement, which can range from approximately every five years for very high consequence facilities to every 7 to 10 years for lower consequence facilities with no permanent population located in the downstream area near the facility. In 2023, dam safety reviews by independent experts were carried out at Jacobina, San Vicente and Minera Florida. The MAC Tailings Management Framework Guidelines and TSM Tailings Management protocol do not apply directly to heap leach operations or water reservoirs, however, we continued to adopt best practices recommended in these guidelines and these protocols in our heap leach operations. All tailings storage facilities and heap leach pads are in satisfactory condition and monitoring results are normal.

Our Timmins, Dolores, La Colorada, Escobal, La Arena, Shahuindo, Jacobina, El Peñon, Huaron and Manantial Espejo mines were all inspected by government agencies in 2023 and no material environmental issues were recorded.

In the financial year ended December 31, 2023, our environmental expenditures for concurrent reclamation were approximately \$27.6 million. The closure and decommissioning liabilities for all sites other than Timmins West, Bell Creek, Jacobina, El Peñon, Minera Florida, Cerro Moro and Alamo Dorado were prepared using the standard reclamation cost estimator (“SRCE”) methodology developed in the State of Nevada, United States, using quantity estimates and cost data obtained at each mine site. Estimates for Timmins West, Bell Creek, Jacobina, El Peñon, Minera Florida, Cerro Moro and Alamo Dorado were developed by each site or external consultants using direct estimation with site-specific closure plans, engineering estimates, local rates and contractor quotes. We currently estimate the aggregate present value of expenditures required for future closure and decommissioning costs in respect of the Huaron, Shahuindo, La Arena, Alamo Dorado, La Colorada, Dolores, Timmins West, Bell Creek, Manantial Espejo, San Vicente, Jacobina, El Peñon, Minera Florida, Cerro Moro and Escobal mines, along with our other development and legacy properties, to be approximately \$447.2 million.

We have adopted formal policies, procedures, and industry best practices to manage our impacts and contribute to the social and economic development of local communities. Our social management framework provides a consistent methodology for measuring and tracking social impacts and sustainability performance across our mines, while offering the flexibility needed to tailor our approach to the circumstances of each operation. Our sustainability audits cover human rights, labour, security and social practices. The social sustainability audit framework is based on the ICMM’s Mining Principles, TSM - Indigenous and Community Relationships Protocol, Crisis Management and Communications Planning Protocol, Mine Closure Framework, and Prevention of Child and Forced Labour Verification Protocol, the United Nations Guiding Principles on Business and Human Rights, the UNICEF Canada’s Child Rights and Security Checklist, the Voluntary Principles on Security and Human Rights and the International Labour Organization’s Guide for Enterprise Diagnostic. During 2023, we conducted sustainability audits at the San Vicente, Huaron, Shahuindo, and La Arena mines. The key observations and recommendations from the reviews are reported monthly to senior management and quarterly to Pan American’s board of directors (the “Board of Directors”) and its committees, and summary results are presented annually in our Sustainability Reports. In 2021, we established the Communities and Sustainable Development Committee (“CSD Committee”) of the Board of Directors in order to increase our focus on ESG matters. Together, the CSD Committee and the Health, Safety, and Environment Committee oversee our ESG strategy.

In 2019, we adopted a new human rights policy that is based on the three pillars of the United Nations Guiding Principles on Business and Human Rights, as well as the Voluntary Principles on Security and Human Rights (the “Voluntary Principles”) and the OECD Guidelines for Multinational Enterprises. This policy consolidates several of our existing objectives in the areas of environment, labour, diversity and social responsibility. It formalizes our approach to fostering a positive human rights culture throughout our organization and our work to prevent, minimize or mitigate adverse impacts from our activities on our employees, communities, and other external stakeholders, including discrimination and harassment. During 2023, we conducted an internal human rights impact assessment at our San Vicente mine in Bolivia and we plan to continue these assessments in coming years. In addition, the San Vicente mine was externally audited as part of our ongoing audit program in respect of the Voluntary Principles. The Company’s other operations that were within our portfolio prior to the Yamana Acquisition had also satisfied the requirements of the Voluntary Principles in 2023, while those operations that became part of our portfolio following the Yamana Acquisition all met at least 50% of the requirements during the year. The intention is that all of the Company’s sites will fully

satisfy the Voluntary Principles by the end of 2024. We have continued to actively participate with the Voluntary Principles Secretariat throughout the year which has helped us improve our approach to maintaining the safety and security of our operations within an operating framework that supports and respects human rights and fundamental freedoms.

We also continued to participate with the International Code of Conduct Association (“ICCA”) for Security Providers of which we hold observer status. Our Latin America security providers continue to work towards certification of the standard. The ICCA standard provides a framework for our security providers to improve their services with a focus on human rights and humanitarian law. In 2023, we also received external limited assurance from Apex Companies LLC for our compliance with the World Gold Council Conflict-Free Standard for 2022. This standard provides us with an approach for identifying and minimizing the risk that our gold production could cause, contribute to, or support unlawful armed conflict.

In 2023, we completed the equity, diversity and inclusion training program and embedded it in our health and safety discussions and induction processes at sites and in our offices, covering all new contractors and employees. We also trained key supervisors and managers in harassment prevention.

We also recognize and respect the rights, cultures, heritage, and interests of Indigenous peoples. We are committed to building and maintaining positive relationships with Indigenous peoples in the regions where we operate through ongoing engagement, and identification of mutually beneficial opportunities.

As part of our commitment to driving global sustainable development and contributing to the United Nations Sustainable Development Goals, in 2020, we became signatories to the United Nations Global Compact and established a working group to lead the implementation and develop our first Communications of Progress report, a membership requirement.

To further our sustainability performance and risk management processes, in 2020, we developed a set of ESG Performance Indicators, to measure and monitor the performance progress of the key environmental and social sustainability activities at our operations monthly. Our social performance indicators cover social risk management, grievance management and community investment. Additionally, we have developed social performance indicators focused on security and human rights standards, as well as indicators that measure the advancement of our programs focused on inclusion and diversity, bias, racism, and behavioural matters, as well as grievance mechanism and social economic development programs performance. Our environmental performance indicators cover environmental incidents, audits, water, energy and greenhouse gas emissions, biodiversity, waste, and implementation of the TSM program.

We met our key environmental performance indicator goals on biodiversity and reduction of greenhouse gas emissions, energy use, waste, and water use compared to the 2023 base case. We also met all of our human capital, inclusion and diversity, and governance performance indicator goals. However, we did not meet our social goal regarding grievances closed, or our environmental audit goal (discussed above).

We recognize that climate change is a threat to the global environment, society, our stakeholders and our business. We support the recommendations from the Financial Stability Board TCFD and published our first TCFD-aligned disclosure as part of our 2020 Sustainability Report. Climate-related goals were incorporated into our 2021 and 2022 Sustainability Reports. Climate-related risks are expected to include, but are not necessarily limited to, those described in the “Risk and Uncertainties” section of the 2023 MD&A and in the “Risks Related to Our Business” section of this AIF. We will also continue to report on our emissions, targeted emission reductions, climate risks and other climate-related actions in our annual Sustainability Reports.

Other than specific environmental and social concerns discussed in more detail elsewhere in this AIF, we are not aware of any material environment or social related matter requiring significant capital or operating outlays in the immediate future. Closure and reclamation costs and actual costs may vary, perhaps materially, from estimates and investors are cautioned against attributing undue certainty to these estimates. The reclamation and closure costs estimate for each of the operating mines and development projects was updated to reflect the conditions as of December 31, 2023.

Our 2022 Sustainability Report was prepared in accordance with the Global Reporting Initiative (“GRI”) Standards: core option and GRI Mining & Metals Sector Disclosures. The report also took into consideration the SASB reporting framework, and includes detailed information on our environmental, social, socio-economic and health and safety programs and performance. Our 2022 Sustainability Report is available on our website at [www.panamericansilver.com](http://www.panamericansilver.com). Our 2023 Sustainability Report will be made available on our website once completed.

## **Operating and Development Properties**

Pursuant to NI 51-102, we have identified the following properties and projects as being material as at December 31, 2023: the La Colorada property, the Shahuindo mine, the Jacobina mine, and the El Peñon mine. We have also identified the currently suspended Escobal mine as a material property for 2023. We do not

consider any of our other mines, development or investment properties to be material properties for the purposes of NI 51-102.

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

## **Mineral Reserve and Mineral Resource Estimate Information**

The process for estimating mineral reserves and mineral resources at our properties is described below in each property section. Pan American is exposed to many risks in conducting its business, both known and unknown, and there are numerous uncertainties inherent in estimating mineral reserves and mineral resources. Although we have no current expectation that our mineral reserve and mineral resource estimates will be materially negatively impacted by external factors such as metallurgical, safety, environmental, permitting, title, access, legal, taxation, availability of resources, and other factors disclosed in this AIF, changes in relation to such factors are not uncommon in the mining industry and there can be no assurance that these factors will not have a material impact. There are numerous uncertainties inherent in estimating mineral reserves and mineral resources. The political, economic, regulatory, judicial, and social risks related to conducting business in foreign jurisdictions, and changes in metal and commodity prices, pose particular risk and uncertainty to us and could result in material impacts to our business and performance. In addition to external factors and risks, the accuracy of any mineral reserve and mineral resource estimate is, among other things, the function of the quality and quantity of available data and of engineering and geological interpretation and judgment. Results from drilling, testing, and production, as well as a material change in metal prices or a change in the planned mining method, subsequent to the date of the estimate, may justify revision of such estimates and may differ, perhaps materially, from current estimates, and investors are cautioned against attributing undue certainty to mineral reserves and mineral resources. Readers are encouraged to read the discussion under the heading “Risks Relating to Our Business” beginning on page 56.

### **I. Operating Properties**

#### **A. Mexico**

##### **(i) La Colorada Property**

###### ***Project Description, Location, and Access***

The La Colorada underground silver mine is located in Zacatecas State, Mexico, approximately 100 kilometres (“km”) south of the city of Durango and 155 km northwest of the city of Zacatecas. The mine is accessed primarily from the cities of Durango and Zacatecas by paved highway and all weather gravel roads.

Our wholly-owned subsidiary, Plata Panamericana, owns and operates the mine. The La Colorada property, including the La Colorada skarn project area and certain exploration concessions outside the mining area, is comprised of 56 mining claims totaling approximately 8,840 hectares. We pay an annual fee to maintain the claims in good standing, and to our knowledge, we have met all the necessary obligations to retain the property.

We have control over or rights in respect of approximately 1,300 hectares of surface area covering the main workings. All of the La Colorada mineral reserves and mineral resources and all of the known mineralized zones, mine workings, the processing plant, effluent management and treatment systems, and tailings disposal areas are located within the mining claims controlled by us.

In 2016, as part of the transaction with Maverix, Maverix acquired a gold stream equivalent of one hundred percent (100%) of the payable gold production from the La Colorada mine, less a fixed price of USD\$650 per ounce for the life of the mine (the “Maverix Gold Stream”). In 2023, the Maverix Gold Stream resulted in Maverix acquiring 2,621 ounces of gold (2022 – 2,659 ounces).

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

In late December 2016, the Zacatecas state government also enacted a new set of ecological taxes which took effect on January 1, 2017 (the “Zacatecas Tax”). The Zacatecas Tax applied broadly across a number of industries in the State of Zacatecas that involve extraction, emissions to the air, soil or water, and deposits of residue or waste. The Zacatecas Tax primarily affected the La Colorada mine in respect of the materials placed in its tailings storage facility, with only about 5% of the tax relating to air emissions. We paid approximately \$4.5 million in respect of the Zacatecas Tax from January 2017 to April 2020. However, pursuant to a challenge of the Zacatecas Tax constitutional grounds, in mid-2020, the Supreme Court of Mexico determined that the tax for the

deposit or storage of waste rock was not within the jurisdiction of the State of Zacatecas and that Plata Panamericana was entitled to be reimbursed for payments previously made in respect of the La Colorada mine. In 2021, the State of Zacatecas allowed Plata Panamericana to begin applying the overpayment against other taxes and fees payable to the State, and as of December 31, 2023, Plata Panamericana had successfully applied approximately \$2.1 million of the original Zacatecas Tax paid.

In its 2020 decision on the Zacatecas Tax, the Court also ruled that the State of Zacatecas was still empowered to impose a tax for the prevention and control of air pollution generated by industrial establishments which are not within the federal competence, and therefore that portion of the tax on Plata Panamericana was upheld.

In December 2020, the State of Zacatecas also modified the original tax on the disposal or storage of waste rock. Plata Panamericana does not currently believe that this tax will be applied to it since the waste rock is part of a waste management plan authorized by the SEMARNAT.

Mexico applies an employee profit-sharing payment which requires Plata Panamericana to share 10% of its taxable income with its workers but is capped at three months of the employee's salary.

While there are no known significant factors or risks that we currently expect to be reasonably likely to affect access or title, or the right or ability to perform work on the La Colorada property, certain community and land ownership rights have been asserted over a portion of our La Colorada surface lands. In addition to claims in the Agrarian Courts in Mexico, a process was initiated before the Secretariat of Agrarian, Territorial and Urban Development ("SEDATU") in Zacatecas to declare such lands as national property. While we are seeking to protect our rights, there could be a material adverse impact on La Colorada's future mining operations if we are unable to maintain access to those surface areas. Please refer to "Risks Related to Our Business" starting on page 56 for a general discussion of the risks relating to our operations.

### ***History***

The Dorado family operated mines at two locations on the property in 1925. From 1929 to 1955, Candelaria y Canoas S.A., a subsidiary of Fresnillo S.A., installed a flotation plant and worked the old dumps of two previous mines on the La Colorada property. From 1933 to the end of World War II, La Compañía de Industrias Peñoles also conducted mining operations on the property. From 1949 to 1993, Compañía de Minas Victoria Eugenia S.A. de C.V. ("Eugenia") operated a number of mines on the property. In 1994, Minas La Colorada S.A. de C.V. ("MLC") acquired the exploration and exploitation claims and surface rights of Eugenia. Until 1997, MLC conducted mining operations on three of the old mines on the property.

During these time periods, exploration was mainly in the form of development along the veins. Prior to our ownership, 131 holes had been diamond drilled. In 1997, we entered into an option agreement with MLC, during which time we conducted exploration and diamond drilling programs as part of our due diligence reviews.

We have been producing from La Colorada since 1998.

### ***Geological Setting, Mineralization, and Deposit Types***

The La Colorada property is located in the Sierra Madre Occidental volcanic belt, at the contact between the Lower Volcanic Supergroup and the Upper Volcanic Supergroup. The oldest rocks exposed on the property are Cretaceous limestones of the Cuesta del Cura Formation and calcareous clastic rocks of the Indidura Formation. They are overlain by conglomerates of the early Tertiary Ahuichilla Formation. East to northeast striking faults form the dominant structures at the property and play a strong role in local mineralization.

Mineralization is found in veins, replacement mantos, and skarn. The majority of the mineral resources and mineral reserves are sourced from the NC vein series, the HW vein series, Veta 3, the Amolillo vein system, vein and manto mineralization at the Recompensa system, with additional mineral resources from the undeveloped skarn deposit.

Most mineralized veins strike east to northeast and dip moderately to steeply to the south. Most of the mineralization of economic significance is located in quartz veins of the La Colorada mine that average 1 metre to 2 metres wide but may be significantly wider. Amolillo strikes over 1.5 km to the northeast and dips 60° to the southeast, for over 800 metres down dip. The average vein width is 2.2 metres. The NC vein series lies around 700 m to the southeast of Amolillo. The most significant of these veins, NC2, strikes around 1.2 km to the northeast and dips 75° to the southeast, for over 1 km down dip. The average vein width is 1.9 metres. The HW series is the western continuation of the NC series, strikes east-west, and dips 50° to the south, for over 600 m down dip. The average vein width is 1.8 metres. Veta 3 runs parallel to the HW and NC series, strikes for over 900 m to the northeast, and dips 75° to the northwest, for around 400 m down dip. The average vein width is 1.7 metres.

Manto style mineralization is found near vein contacts where the primary host rock is limestone.

A skarn deposit was discovered in 2018 at depth and to the east of the NC2 vein. With increasing depth, mineralization styles progress from epithermal style veins to manto style mineralization in calcareous sediments, skarn, magmatic hydrothermal breccia skarn, proximal skarn, epithermal veins overprinting porphyry, and copper-molybdenum-silver porphyry. Common minerals include galena and sphalerite, with quartz, carbonate, feldspar, pyroxene, and garnet. The deposit, as currently defined, comprises several zones of mineralization located between 600 metres to 1,900 metres below surface, over an area of approximately 1,400 metres by 650 metres.

### ***Exploration***

The mine had been working for several decades prior to any specific exploration work and most major structures became known through mine development. Prior to Pan American's ownership, 131 diamond drillholes for a total of 8,665 metres had been completed by MLC, and between September 1997 and March 1998, while the property was under option, Pan American conducted a geophysical survey comprising very low frequency radio and induced polarization.

Since Pan American acquired the La Colorada property, staff and consulting structural geologists have carried out near mine surface and underground geological and structural mapping. Underground channel and raise sampling is conducted for grade control and mineral resource and reserve estimates as mining progresses.

### ***Drilling***

All drilling is by diamond drilling from surface and underground using industry standard drill machines and downhole survey tools. Drilling is conducted by both our employees and private drilling contractors under the supervision of the mine geology department. Near mine surface and underground diamond drilling exploration campaigns are ongoing on an annual basis for mineral resource and mineral reserve estimates.

By the end of June 2023, over 757,000 metres had been drilled at the La Colorada property in both the La Colorada vein mine areas (Recompensa, Estrella, and Candelaria) and at the skarn project deposit area. This includes drilling 342 drill holes (for 282,555 metres) targeting the skarn project, of which 181 drill holes (126,697 metres) were directional drilling from pre-existing drill holes to reach target depths.

### ***Sampling, Analysis, and Data Verification***

The drill core is cut in half with a diamond bladed saw and samples are selected with respect to geological features, at two metre lengths or less. Channel samples of approximately one metre in width are taken in ore development areas and stopes. The samples are maintained in secure facilities and are under the control of our employees or the independent laboratory at all times. We have no reason to believe that the validity and integrity of the samples has been compromised.

The drillhole samples are prepared by the internal La Colorada mine laboratory, which is operated by our employees, and by independent laboratories including SGS of Durango, Activation Laboratories Ltd ("Actlabs") of Zacatecas, and Bureau Veritas of Hermosillo. Both Actlabs and SGS use fire assay with gravimetric finish for gold and acid digestion with ICP finish for silver, lead, zinc, and copper. Bureau Veritas uses fire assay with gravimetric finish for gold and acid digestion with ICP finish for silver, lead, zinc, and copper in their Vancouver, Canada laboratory. The La Colorada mine laboratory uses fire assay with gravimetric finish for gold and silver, and acid digestion with atomic absorption ("AA") finish for lead, zinc, and copper.

The mine geology department conducts a quality assurance/quality control ("QAQC") program that is independent from the laboratory. The program includes the insertion of certified standards, blanks and duplicate samples. The results of the QAQC samples demonstrate acceptable accuracy and precision and that no significant contamination is occurring at the mine or external laboratories.

### ***Mineral Processing and Metallurgical Testing***

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

## Mineral Resource and Mineral Reserve Estimates

Management estimates that mineral reserves at the La Colorada mine, effective June 30, 2023, are as follows:

La Colorada Mineral Reserves <sup>1, 2, 3, 4</sup>					
Reserve Category	Tonnes (Mt)	Grams of Silver per tonne	Grams of Gold per tonne	% Zinc	% Lead
Proven	5.0	296	0.21	2.15	1.25
Probable	4.2	292	0.19	2.22	1.26
TOTAL	9.2	294	0.20	2.18	1.25

### Notes:

- 1 Estimated using a price of \$19 per ounce of silver, \$1,300 per ounce of gold, \$2,600 per tonne of zinc and \$2,000 per tonne of lead. Totals may not add due to rounding.
- 2 Mineral reserve estimates for the La Colorada mine have been prepared under the supervision or were reviewed by Christopher Emerson, FAusIMM, and Martin Wafforn, P. Eng., who are each Qualified Persons as that term is defined in NI 43-101.
- 3 Lead and zinc grades shown for the La Colorada mine are averages for the deposit. However, as the base metals are only payable in the concentrates produced from the sulphide ores and not in the doré produced from the oxide ores, the lead and zinc grades for the oxide portion of the deposit are assumed to be 0% for calculation of the average lead and zinc grades of the deposit.
- 4 Mineral reserves are in addition to mineral resources.

Management estimates that mineral resources at the La Colorada mine, effective June 30, 2023, and the La Colorada skarn project, effective December 18, 2023 are as follows:

La Colorada Mineral Resources <sup>1, 2, 3</sup>					
Resource Category	Tonnes (Mt)	Grams of Silver per tonne	Grams of Gold per tonne	% Zinc	% Lead
Measured	0.7	153	0.13	1.18	0.64
Indicated	2.5	182	0.19	1.41	0.87
Inferred	14.7	174	0.20	1.67	0.94
Indicated Skarn <sup>4</sup>	173.6	33	—	2.79	1.32
Inferred Skarn <sup>4</sup>	103.6	35	—	2.47	1.03

### Notes:

- 1 Mineral resources exclude those mineral resources converted to mineral reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Mineral resources were reported using a price of \$19 per ounce of silver, \$1,300 per ounce of gold, \$2,600 per tonne of zinc and \$2,000 per tonne of lead, for the vein mine and \$22 per ounce of silver, \$2,800 per tonne of zinc, and \$2,200 per tonne of lead for the skarn deposit. For the vein mine, the vein hanging wall and footwall zones were combined to generate a practical mining width that includes necessary dilution. An economic cut off grade that varies per vein was then applied to the practical mining interval for tabulation of mineral resources. At the skarn project deposit, a cut-off value of \$50 per tonne net smelter return (NSR), which used metallurgical recoveries of 87.4% silver, 88% lead, and 93% zinc was used to generate mineable sub-level caving shapes to satisfy the criteria of eventual economic extraction. The skarn project mineral resource includes the total in situ grades and tonnes within these mining shapes (including must-take dilution) plus material inside development shapes outside the mining shapes at a cut off grade of \$10 NSR.
- 2 Mineral resource estimates for the La Colorada property have been prepared under the supervision, or were reviewed by Christopher Emerson, FAusIMM and Martin Wafforn, P. Eng., who are each Qualified Persons as that term is defined in NI 43-101.
- 3 Lead and zinc grades shown for the La Colorada mine are averages for the deposit. However, as the base metals are only payable in the concentrates produced from the sulphide ores and not in the doré produced from the oxide ores, the lead and zinc grades for the oxide portion of the deposit are assumed to be 0% for calculation of the average lead and zinc grades of the deposit.
- 4 Effective date for the La Colorada skarn project mineral resource estimate is December 18, 2023.

Three dimensional interpretations are made for each vein or mineralized structure using geological logging of exploration drilling and channel sampling. No minimum vein thickness was modelled and veins were extrapolated to a maximum of half the local drillhole spacing. Three dimensional interpretations are also made for set two metre hanging wall and footwall dilution volumes, at least some of which are expected to be mined with each structure. The wireframe interpretations are filled with blocks and grade is estimated into each block using capped samples or composites and a multi-pass length corrected Ordinary Kriging or length weighted Inverse Distance interpolation approach. An average density value is assigned to each block based on whether it is ore, hanging wall or footwall. The block model is classified into confidence categories based on the sample density and proximity to each block, as well as the interpretation and the experience of the mine geologists. The vein, hanging wall and footwall zones are combined into a practical mining width that includes a minimum dilution applicable for the mining method to be used. The final block model is depleted annually for mining in the previous year and a value per tonne is applied to each block based on the diluted mining width. The block model is imported into Mine Site Optimiser for the generation of economic stope shapes. Mineral resources that can be economically mined are converted to mineral reserves.

For the skarn project, three dimensional interpretations of the geological units were completed and filled with blocks. Grade and density values were estimated for each geological unit using capped composites, multiple search passes and Ordinary Kriging or Inverse Distance interpolation methods. The block model was classified into cohesive confidence categories based on drillhole spacing and estimation confidence. An NSR value per tonne was calculated using assumed metal prices, metallurgical recoveries obtained from testing, and estimates for transportation of concentrates, payability and refining and selling costs. Reasonable prospects for eventual economic extraction were assessed by generating mineable shapes to constrain the model and are therefore inclusive of some must-take low-grade material. The total in-situ tonnes and grade were reported inside these constraining volumes, as well as some above cut-off material in planned development outside the mining shapes.

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

### ***Mining Operations***

Underground mining currently takes place utilizing cut and fill and long hole open stoping methods. Ore is hoisted to the surface in a shaft, and when required, may also be hauled to the surface using the mine access ramps present in both mines.

### ***Processing and Recovery Operations***

The operation mines both oxide and sulphide ore processed in two separate circuits with a total nominal plant capacity of 2,000 tonnes per day ("tpd"). The oxide plant is a conventional cyanide leach process comprised of crushing, grinding, leaching, Merrill Crowe, and on-site smelting to produce doré. The sulphide plant has a conventional flotation process comprised of crushing, grinding, and selective lead and zinc froth flotation circuits to produce separate precious metal rich lead and zinc concentrates. In the oxide plant, metallurgical recoveries averaged 82.3% for silver and 42.7% for gold in 2023. In the sulphide plant, recoveries in 2023 averaged 92.8% for silver, 57.6% for gold, 85.9% for lead, and 83.5% for zinc.

During 2023, we processed 537.1 thousand tonnes, producing 4.4 million ounces of silver, 2.3 thousand ounces of gold, 7.4 thousand tonnes of zinc, 4.2 thousand tonnes of lead, and 77 tonnes of copper.

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

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

<b>2023</b>	<b>Revenue<sup>1,2</sup></b>	<b>Quantity Sold</b>
Silver and Gold in Doré	\$3.3 million	336,000 ounces of silver 163 ounces of gold
Lead Concentrate <sup>3</sup>	\$104.7 million	12,744 tonnes
Zinc Concentrate <sup>3</sup>	\$14.5 million	12,933 tonnes
<b>2022</b>	<b>Revenue<sup>1,2</sup></b>	<b>Quantity Sold</b>
Silver and Gold in Doré	\$12.9 million	717,043 ounces of silver 490 ounces of gold
Lead Concentrate <sup>3</sup>	\$113.9 million	13,447 tonnes
Zinc Concentrate <sup>3</sup>	\$29.3 million	17,649 tonnes
<b>2021</b>	<b>Revenue<sup>1,2</sup></b>	<b>Quantity Sold</b>
Silver and Gold in Doré	\$18.5 million	892,231 ounces of silver 446 ounces of gold
Lead Concentrate <sup>3</sup>	\$85.6 million	10,830 tonnes
Zinc Concentrate <sup>3</sup>	\$26.0 million	17,135 tonnes

**Notes:**

- 1 Consists of sales to arm's length customers. The impact of the Maverix Gold Stream is booked through silver and gold doré and as a result, doré revenue is reduced by the amount of gold included in concentrate that is delivered to Maverix.
- 2 Calculated as gross revenue plus export credit incentives (as applicable), less treatment and refining charges and export taxes.
- 3 Lead concentrates contain payable silver, gold and copper. Zinc concentrates contain payable silver.

### ***Infrastructure, Permitting, and Compliance Activities***

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

The La Colorada mine has an electrical power purchase agreement with a third-party provider of renewable energy. Back up diesel power is available for some of the critical operating systems. Water for the mining operation is supplied from the underground mine dewatering systems.

An environmental impact statement ("EIS") and risk assessment on the La Colorada property was first submitted to the Mexican environmental authorities in early March 1999 and has subsequently been maintained and updated, including a major permit modification for the La Colorada mine expansion in 2017.

The main environmental projects focus on the stability and revegetation of historic tailings facilities. There are no known environmental issues that could materially impact our ability to extract the mineral resources or mineral reserves.

Permitting activities related to the La Colorada skarn project commenced in 2020 and applications for twin decline ramps and a new 700m deep ventilation shaft located directly above the skarn deposit were approved by the Mexican environmental authorities in 2021. The new ventilation shaft sinking was largely completed in December 2023. Permits were recently approved for ventilation extraction fans at the new shaft.

The La Colorada mine voluntarily participates in the Mexican Environmental Protection Authority's "Clean Industry" program, which involves independent verification of compliance with all environmental permits and the implementation of good practice environmental management procedures and practices. The La Colorada mine obtained its first certification in 2008 and is periodically re-certified.

A closure cost estimate for the La Colorada mine is prepared according to State of Nevada approved SRCE methodology is updated every year for unit costs and discount rates, and every other year for physical disturbance if necessary. Pan American has estimated the present value of site reclamation costs for the La Colorada mine to be approximately \$6.3 million effective December 31, 2023. See "Narrative Description of the Business – Environment, Community and Sustainability" for further disclosure regarding forward-looking statements related to reclamation costs.



## ***Capital and Operating Costs***

In 2023, total capital additions at La Colorada property were approximately \$63.9 million, with \$44.4 million invested in project capital related to the expansion activities, including exploration and preliminary economic studies of the La Colorada skarn project, as well as the new completion of the excavation of the concrete-lined ventilation shaft was advanced to its ultimate depth with installation of the fans expected by mid-2024.

In 2023, production costs at La Colorada were \$127.4 million.

Capital investments in 2024 are anticipated to total between \$47.5 million to \$49.0 million, comprising of \$22.5 million to \$23.0 million in sustaining capital and project capital between \$25.0 million to \$26.0 million. The major components of these investments include exploration drilling, ventilation fans shaft installation, mine infrastructure and tailings dams and leach pad upgrades.

## ***Exploration, Development, and Production***

In 2024, we anticipate producing between 5.3 million and 5.7 million ounces of silver, and 2.0 thousand ounces of gold from the La Colorada mine. We currently plan to undertake approximately 52,000 metres of exploration drilling at the La Colorada property, including the skarn project, in 2023.

### **B. Peru**

#### **(i) Shahuindo Mine**

##### ***Project Description, Location, and Access***

The Shahuindo mine is an open pit gold mine located in northern Peru, 970 km north-northwest of Lima. The site is approximately 130 km from Cajamarca via asphalt-paved highway (100 km on Highway 3N), and gravel and dirt roads. There are daily flights between Lima and Cajamarca on Peruvian national airlines.

Shahuindo comprises one mineral right, ACUMULACION SHAHUINDO, 100% controlled by Pan American's wholly-owned subsidiary, Shahuindo SAC, and has an approximate area of 7,338.91 hectares. The mining claims have no expiry date. All concessions are subject to an annual payment of \$3 per hectare to the Peruvian government. To the best of our knowledge, all claims are currently in good standing.

Shahuindo SAC has acquired 612 surface rights within Shahuindo covering a total area of about 3,144.68 ha. Some of these surface rights were used to relocate local land owners into new areas.

Shahuindo is subject to various government taxes, fees and duties, including the Modified Mining Royalty, OSINERGMIN payment, OEFA payment, corporate taxes, a Temporary Net Assets Tax, Special Mining Tax, and a worker profit-sharing payment which requires Shahuindo to share 8% of its taxable income with its workers.

While Pan American believes that there are no significant risks to Shahuindo in regard to surface and concession title, the ability to access Shahuindo, the receipt of any remaining permits and licenses, or Pan American's ability to perform the work as described in the Shahuindo Technical Report. Please refer to "Risks Related to Our Business" starting on page 56 for a general discussion of the risks relating to our operations.

##### ***History***

Legal rights to the mineral leases of the Shahuindo mine were in dispute between 1996 and 2009. Several Peruvian, Mexican and Canadian companies have been involved in numerous legal processes that were eventually settled in 2009 with 100% ownership being legally registered to Sulliden Shahuindo SAC, a wholly-owned subsidiary of Sulliden Gold Ltd. ("Sulliden"). Rio Alto Mining Limited ("Rio Alto") acquired Sulliden in 2014, and in April 2015, Tahoe completed its acquisition of Rio Alto, thereby acquiring control of Sulliden Shahuindo SAC (renamed Shahuindo SAC). Pan American completed the Tahoe Acquisition in February 2019.

Exploration and mining activities have taken place on Shahuindo since 1945. Between 1945 and 1989, Minera Algamarca S.A. ("Algamarca") conducted mining and exploration work on Shahuindo. Between 1990 and 1998, former operators conducted geological mapping, drilling of approximately 200 holes, soil and rock geochemical sampling, and metallurgical testwork. Sulliden conducted a large surface drilling campaign of approximately 642 holes, geophysical surveys, geological mapping and trenching, soil and surface rock sampling, metallurgical testing, geotechnical drilling and economic analyses between 2002 and 2012. Rio Alto conducted a campaign of 351 reverse circulation drillholes and 68 diamond drill core holes totaling 56,298 metres between 2014 and 2015, and drilling was continued on Shahuindo by Tahoe. Tahoe attained production, with the first gold poured in December 2015. We have been producing from the Shahuindo mine since acquiring it in the Tahoe Acquisition in late February 2019.

## ***Geological Setting, Mineralization, and Deposit Types***

The Shahuindo mine is located on the eastern flank of the Andean Western Cordillera in northern Peru, within a regional fold and thrust belt of predominantly Mesozoic sedimentary rocks intruded by felsic stocks located along faults and cores of anticlinal structures. The principal zone of mineralization in the Shahuindo district occurs in a belt between two large-amplitude regional-scale folds, the Algamarca anticline and the San Jose anticline. Important structural elements such as fold flanks, axial fold surfaces, fold-related fractures, faults, extension-related fractures, dikes, and intrusive contacts as well as favorable stratigraphy were used in modeling. The mineralization is hosted within the siliciclastic sandstone-dominant Farrat formation and the underlying sedimentary Carhuaz formation. These sedimentary rocks have been intruded by at least three felsic stocks which tend to be located along faults and cores of anticlinal structures.

Mineralization at Shahuindo can best be described as an intermediate-sulfidation epithermal system, though high-sulfidation mineralization occurs at depth and in the core of hydrothermal breccias. Oxidation of mineralization extends to a depth of 150 metres below surface.

### ***Exploration***

Algamarca and Exploraciones Algamarca S.A. commenced exploitation of the Algamarca mine in the 1940s and continued mining and exploration work on Shahuindo until 1989. From about 1990 to 1998, three companies explored the Shahuindo area – Alta Tecnología e Inversión Minera y Metalúrgica S.A. (“Atimmsa”), Asarco LLC (“Asarco”), and Southern Peru Copper Corporation (“Southern Peru”). Atimmsa, Asarco, and Southern Peru completed geological mapping; soil, outcrop, and rock chip sampling; and reverse circulation and core drilling. From the acquisition of Sulliden in 2014, Rio Alto completed infill and “step out” holes in and around the Shahuindo deposit to confirm and expand the mineral resource. In total Rio Alto completed 56,298 metres of reverse circulation and diamond drilling. Further confirmatory infill drilling and exploration continued between 2016 and 2018 with Tahoe of 51,439 metres and thereafter with Pan American from 2019. Val Dór Geofísica Peru conducted magnetic and induced polarization geophysical surveys between 2002 and 2012 on behalf of the prior owners of Shahuindo.

### ***Drilling***

Pan American’s 2019 to 2022 drill programs were executed by various contractors. Drilling during this time period was principally reverse circulation (217 holes) and, to a lesser extent, diamond core holes (56 holes). Diamond core was generally HQ and to a lesser degree NQ size, depending upon ground conditions. From the completion of the Tahoe Acquisition in 2019 through June 30, 2022, Pan American continued infill drilling within the current mineral resource and pit shell and exploration drilling to test potential mineral resource extensions outside of the defined pit, principally testing the deep sulfide targets. Drilling in 2022-2023 focused on systematic grade control drilling using the company-owned RC drill. The drill hole database used for the mineral resource estimate contains 1,844 drillholes totaling 290,754 metres. All drill data corresponding to the reverse circulation and diamond drill data from Pan American and previous drilling campaigns were reviewed and verified.

### ***Sampling, Analysis, and Data Verification***

Pan American employs the following procedure for diamond drill core sampling: competent core is split lengthwise with a diamond-blade rotary saw and disaggregated core was sampled using a spatula to take half of the sample. Sample lengths are typically 2.0 metres but are reduced to break samples at lithologic contacts or changes in oxidation state. Where the core was completely disaggregated, sample lengths were changed to coincide with drill runs to minimize mixing between samples of differing core recoveries.

For reverse circulation drill sampling Pan American employs the following procedure: reverse circulation drilling cuttings were sampled on 1.5 metre intervals at the rig and 30% of the cuttings of each individual sample were bagged and sent to the laboratory for analyses. The remaining 70% of the sample cuttings were bagged and kept as rejects. Two reference chip trays, one with a complete sample and the other with a sieved sample (one millimetre mesh), were collected for geologic logging and archiving.

Pan American maintains core-storage facilities at the project site and one leased storage warehouse in the city of Cajamarca. All core generated at Shahuindo is stored at either of these facilities. Reverse circulation drilling rejects are stored at the project site. Since 2014, all samples for the Shahuindo drill programs have been analyzed by CERTIMIN laboratory, an independent contract laboratory located in Lima. Gold was assayed using a 50-gram fire assay with an AA finish. Silver was assayed from a 5-gram split, which was digested by aqua regia and read by AA.

Shahuindo SAC has continually maintained oversight of sample security from Shahuindo to laboratory facilities. Since 2014, all samples were shipped directly from the project site to the CERTIMIN laboratory in Lima. Tahoe’s and Pan American’s drill programs, over the period from July 2016 to May 2022, utilized standard reference materials, blanks, and field duplicates. The QAQC samples were inserted into drill sample sequences and submitted for analysis to the CERTIMIN and SGS laboratories in Lima.

During the period from July 2016 to May 2022, a total of 41,496 drillhole samples were submitted for laboratory analyses. A total of 5,530 control samples were inserted with drillhole samples; these comprise samples taken from both reverse circulation and diamond drillholes. The sampling methods, security, and analytical procedures are considered to be adequate. The QAQC performance indicates reasonable levels of accuracy and precision.

It is the opinion of the qualified persons responsible for the preparation of the Shahuindo Technical Report that the data used to support the conclusions presented therein are adequate for the purposes used in the Shahuindo Technical Report.

### ***Mineral Processing and Metallurgical Testing***

The mineral processing and metallurgical testing includes cyanidation, including column leach tests, agglomeration testing and flotation testing conducted on composites samples since 1996. As part of normal plant operations and processing procedures, metallurgical analysis and testing is undertaken as required. The results of the laboratory testing program indicate excellent gold recoveries for run-of-mine oxide ore with low to moderate reagent requirements, which are in line with current production data. Silver recoveries are generally low. Maintaining heap permeability and minimizing channeling at higher heap heights constitutes a risk to the project which is currently being mitigated by blending of less permeable material types with more competent ore.

### ***Mineral Resource and Mineral Reserve Estimates***

Management estimates that mineral reserves at the Shahuindo mine, effective June 30, 2023, are as follows:

<b>Shahuindo Mineral Reserves<sup>1, 2, 3</sup></b>			
<b>Reserve Category</b>	<b>Tonnes (Mt)</b>	<b>Grams of Silver per tonne</b>	<b>Grams of Gold per tonne</b>
Proven	58.8	8	0.51
Probable	33.6	6	0.40
<b>TOTAL</b>	<b>92.4</b>	<b>7</b>	<b>0.47</b>

Notes:

- 1 Estimated using a price of \$19 per ounce of silver and \$1,500 per ounce of gold. Totals may not add due to rounding.
- 2 Mineral reserve estimates for the Shahuindo mine were prepared under the supervision of, or were reviewed by Christopher Emerson, FAusIMM, and Martin Wafforn, P.Eng., who are each Qualified Persons as that term is defined in NI 43-101.
- 3 Mineral reserves are in addition to mineral resources.

Management estimates that mineral resources at the Shahuindo mine, effective June 30, 2023, are as follows:

<b>Shahuindo Mineral Resources<sup>1, 2</sup></b>			
<b>Resource Category</b>	<b>Tonnes (Mt)</b>	<b>Grams of Silver per tonne</b>	<b>Grams of Gold per tonne<sup>3</sup></b>
Measured	5.4	6	0.31
Indicated	7.1	5	0.33
Inferred	10.1	8	0.38

Notes:

- 1 Mineral resources exclude those mineral resources converted to mineral reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Estimated using a price of \$22 per ounce of silver and \$1,700 per ounce of gold. Mineral resources are reported within a final pit outline and above a mineral resource cut-off grade.
- 2 Mineral resource estimates for the Shahuindo mine were prepared under the supervision of, or were reviewed by Christopher Emerson, FAusIMM, and Martin Wafforn, P.Eng., who are each Qualified Persons as that term is defined in NI 43-101.
- 3 Inferred resources are comprised of oxide mineralization.

In order to prepare mineral resource estimates, Leapfrog software was used to model lithology, oxidation state and structural domains. A total of 72 grade shells were modeled using a cut off of 0.1 g/t. A regular model from a sub cell block model in Maptek Vulcan software was used. Grade was estimated into each domain using capped composites and a multi-pass Ordinary Kriging interpolation approach. The estimate was classified into spatially continuous measured, indicated, and inferred categories based on distance and number of drillhole composite samples. Reasonable prospects for reasonable eventual economic extraction were addressed by constraining the resource within an open pit shell.

The mineral reserve estimate was completed by first identifying the optimal pit limits using the mineral reserve metal prices and economic parameters with Lerch-Grossman pit optimization techniques using Whittle™ software. The results of the optimization were used to guide the detailed pit design which included ramp access

for mine equipment and personnel, and the detailed batter slope and berm configurations. A comparison between the life of mine ("LOM") pit design and the Whittle optimization showed a close alignment. The designed pit was used to convert the economic portion of the measured and indicated mineral resources to mineral reserves. Historical reconciliation performance shows that the resource normally underestimates the contained metal tonnes and grade, hence no additional ore loss or dilution were applied.

Mineral reserve estimates are based on assumptions that include mining, metallurgical, infrastructure, permitting, taxation, and economic parameters. Increasing costs and taxation and lower metal prices will have a negative impact on the quantity of estimated mineral reserves. There are no other known factors that may have a material impact on the estimate of mineral reserves.

### ***Mining Operations***

Shahuindo consists of an open pit mine and heap leach processing facility that is currently in production and has been operating since November 2015. The open pit is being mined in a sequence of phased cutbacks. The mining method utilizes conventional drill and blast. Loading of ore and waste is by diesel powered excavators into heavy duty highway rigid frame dump trucks. This type of truck is common in this style of operation in Peru. The ore and waste are hauled to the leach pad or waste dumps correspondingly.

### ***Processing and Recovery Operations***

The Shahuindo mine uses conventional cyanide run-of-mine heap leaching and a carbon-in-column adsorption circuit process. Gold and silver are recovered by electrowinning with the resulting electrowinning sludge being dried, retorted, and smelted onsite to produce the final doré product. Average throughput is 36,000 tpd. A 36,000 tpd crushing and agglomeration plant is in the process of final dismantling as it has been determined that it is not required given successful use of ore blending alternatives.

In 2023, a total of 12.5 million tonnes of ore were stacked on the pads. Metal production in 2023 was approximately 140.1 thousand ounces of gold and 0.3 million ounces of silver.

Shahuindo produces gold in the form of doré bars and has contracts in place with Asahi Refining Canada, Argor Heraeus and Metalor in Switzerland, for refining the doré produced on site. The doré is transported to these facilities where it is refined to the London Good Delivery specification. Once refined, the good delivery gold and silver is sold on the international market to bullion banks and financial institutions. To date, no issues have been encountered in securing the sale of the refined metal from Shahuindo. No hedging takes place at this time. Please see "Risks Related to Our Business – Trading Activities and Credit Risk".

The revenues per type of doré produced at the Shahuindo mine for the past three years are as follows:

<b>2023</b>	<b>Revenue<sup>1, 2</sup></b>	<b>Quantity Sold</b>
Silver and Gold in Doré	\$284.7 million	282,445 ounces of silver 142,375 ounces of gold
<b>2022</b>	<b>Revenue<sup>1, 2</sup></b>	<b>Quantity Sold</b>
Silver and Gold in Doré	\$266.4 million	271,149 ounces of silver 145,320 ounces of gold
<b>2021</b>	<b>Revenue<sup>2, 3</sup></b>	<b>Quantity Sold</b>
Silver and Gold in Doré	\$255.8 million	224,876 ounces of silver 139,456 ounces of gold

Notes:

1 Consists of sales to arm's length customers.

2 Calculated as gross revenue plus export credit incentives (as applicable), less treatment and refining charges and export taxes.

### ***Infrastructure, Permitting, and Compliance Activities***

Shahuindo is a mature operating mine and site infrastructure including site roads that are fully developed to support the existing mine production. Exploration, construction, and operations conducted to date have been performed under the relevant local and national permits.

The Shahuindo mine operates under an environmental impact assessment ("EIA") approved in 2013. The first modification of the EIA was approved in 2016 and included an increase in the mineral reserves, the pit and infrastructure footprints, and expansion of production to 36,000 tpd delivered to the leach pads.

The primary source of power for the mine is the Peruvian national power grid. Water for the operation is obtained from groundwater wells and a collection pond. The current LOM plan considers that pit dewatering may be required from 2026 and this water will be used as part of the fresh water supply for Shahuindo if required in dry seasons. A water treatment plant was recently constructed in the Merinos catchment below the south waste dump. The plant will provide treatment and discharge compliance for excess contact water during operations and closure.

A closure cost estimate for the Shahuindo mine prepared according to State of Nevada approved SRCE methodology is updated every year. Pan American has estimated the present value of the site reclamation costs for the Shahuindo mine to be approximately \$42.6 million effective December 31, 2023.

### ***Capital and Operating Costs***

In 2023, capital additions at the Shahuindo mine totalled \$63.7 million, primarily on leach pad expansions and waste dump preparation, as well as mine equipment and replacements.

In 2023, production costs at the Shahuindo mine were \$143.7 million.

Capital investments in 2024 are anticipated to total between \$76.0 million to \$80.0 million. The major components of these investments include waste dump preparation, heap leach pad expansions and construction of a water treatment plant.

### ***Exploration, Development, and Production***

In 2024, we anticipate producing between 122.0 thousand and 144.0 thousand ounces of gold, and 0.2 and 0.3 million ounces of silver from the Shahuindo mine. We currently plan to undertake approximately 6,000 metres of exploration drilling at Shahuindo in 2024.

## **C. Brazil**

### **(i) Jacobina Mine**

#### ***Project Description, Location, and Access***

The Jacobina mine is located 10 km from the town of Jacobina, which is accessible by paved secondary highway from Salvador, the state capital of Bahia, located 340 km to the south-southeast of the mine complex. Well-maintained paved roads from the town of Jacobina provide access to the Jacobina property. The mine operates on a year-round basis.

Jacobina forms a long rectangle measuring 155 km in a north-south direction, and 5 to 25 km in an east-west direction. The shape of the claim package reflects the underlying geology as the stratigraphy favourable for hosting gold mineralization trends north-south. The Jacobina mineral rights consist of approximately 5,954 hectares of mining concessions, 58,010 hectares of exploration permits, and one 650 hectare mining claim; all of which are held by Pan American through its wholly-owned subsidiary, JMC, which it acquired through the Yamana Acquisition in March 2023. The exploration concessions are renewable on a three-year basis. JMC holds all of the surface rights required for the development of its activities.

JMC does not pay royalties, however, it does pay taxes to the federal mineral sector agency. These taxes, called *Compensação Financeira pela Exploração de Recursos Minerais*, also known as the Brazilian mining royalty, are set at a rate of 1.5% of revenue. JMC does not have any obligations in respect to back-in rights, payments, or other agreements or encumbrances. Additionally, JMC corporate tax is eligible for the Development Superintendency of the Northeast (SUDENE) Tax Holiday' benefiting from a substantial reduction in the corporate income tax (IRPJ) rate from 25% to 6.25%, resulting in a combined decrease in income tax and social contribution rates from 34% to 15.25%. JMC has all required permits to continue carrying out the proposed mining operations for Jacobina. Pan American is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform mining and exploration work on the property.

#### ***History***

The Serra de Jacobina Mountains have been mined for gold since the late 17th century. Numerous historic workings from artisanal miners (*garimpeiros*) can be seen along a 15 km strike length, following the ridges of the mountain chain. The modern history of the Jacobina mining camp began in the early 1970s with extensive geological studies and exploration carried out by Anglo American Corporation. Mine development at Itapicuru (Morro do Vento area) commenced in October 1980 and the processing plant was commissioned in November 1982.

The Jacobina mine began production in 1983 and, following a suspension of operations between 1999 and 2004, commercial production restarted in July 2005. Gold production for Jacobina in 2023 was approximately

196.1 thousand ounces, while total gold production from Jacobina since mining commenced in 1983 to the end of 2023 was nearly 3 million ounces.

### ***Geological Setting, Mineralization, and Deposit Types***

The Jacobina gold district is defined by a 40 km long belt that extends from Campo Limpo, in the south, to Santa Cruz do Coqueiro, in the north. The mineralization at Jacobina consists of two mineralization styles: (i) conglomerate-hosted gold, generally interpreted to represent paleoplacer deposits (the most important mineralization type in the Jacobina district) and (ii) post-depositional modification by structural and hydrothermal events evident as gold-bearing stockwork, shear zones, and associated extensional quartz veins (relatively minor and do not contribute to the established mineral resources at Jacobina). This type of deposit is similar to the Witwatersrand and Tarkwa deposits in South and West Africa.

The gold mineralization at Jacobina is hosted almost entirely within quartz pebble conglomerates of the Serra do Córrego Formation, the lowermost sequence of the Proterozoic age Jacobina Group. This formation is typically 500 metres thick but locally achieves thicknesses of up to one km. The gold-bearing conglomerate units, known as reefs, range from less than 1.5 metres to 25 metres in width and can be followed along strike for hundreds of metres, and in some cases for over a km. Some contacts between the reefs and crosscutting mafic and ultramafic intrusive rocks are enriched in gold. Although they are quite homogeneous along their strike and dip extensions, the gold-bearing conglomerates differ from one another in stratigraphic position and pattern of gold distribution. The differences are likely due to variations in the sedimentary source regions, in the erosion and transportation mechanisms, and in the nature of the depositional environments. Not all conglomerates of the Serra do Córrego Formation are gold-bearing.

### ***Exploration***

Since 2006, a program of regional exploration has been underway with the goal of identifying additional occurrences of mineralized conglomerates at surface along the strike length of the Jacobina belt. Chip or grab samples, mainly of conglomerate, were collected; samples weighed between one and three kilograms. A total of 14,149 chip samples, 1,610 soil samples, 55 stream samples and 85 pan concentrate samples were collected on the property by Yamana between 2020 and mid-2023. All samples were processed according to Jacobina's QAQC protocols.

Between 2020 and 2023, a structural mapping program was carried out on surface in the immediate vicinity of the mines. The Serra do Córrego Mine and the Lagartixa, Morro da Viúva, Maricota and João Belo South targets were mapped on surface and Canavieiras South and João Belo North mines were mapped underground. The results were used to reinterpret the structural setting and genesis of the Jacobina style of mineralization. This improved understanding informed the drilling programs completed in 2020 and mid-2023.

The exploration programs have led to the expansion of the known deposits (Canavieiras, Morro do Vento, João Belo) and to the discovery of new mineralized zones, such as Maricota and Morro da Viúva among others. Since 2019, two new deposits have been delineated: João Belo South, that represents the southern extension of the João Belo North mine and shows similar reefs and average gold grades; and Morro do Vento East, that represents the eastern extension of the Upper Conglomerate of Morro do Vento mine and shows similar reefs and average gold grades. The mineralization in both new deposits still shows potential for extension along strike and down dip.

At Morro do Vento mine, exploratory drilling has successfully delineated the extension of the Main Reef zone in the down-plunge direction. Intersections grading 3.30 g/t gold over 3.56 m (drill hole MVTEX00110), 4.85 g/t gold over 8.24 m (MVTEX00111), and 3.56 g/t of gold over 3.03 m (MVTEX00122), demonstrate potential for finding additional mineral reserve down dip.

In terms of regional exploration prospects, the gold-rich stratigraphy in Jacobina has been consistently identified over an extensive strike length of approximately 150 km. Ongoing exploration initiatives have led to the discovery of numerous gold occurrences within this favourable stratigraphy, notably at the Jacobina Norte project, where a continuous 60-km-long gold mineralization trend has been identified.

### ***Drilling***

From 1970 to December 2023, approximately 1,239,983 metres of surface and underground drilling has been completed in the Jacobina area. Surface drilling is done using HQ-diameter (63.5 mm) and NQ-diameter (47.6 mm) sized core; underground drilling uses LTK48-diameter core (35.3 mm) and BQ-diameter core (36.5 mm). The drill contractors used for surface drilling on the property were Geoserv Pesquisas Geológicas S.A., WFS Sondagem Ltda., Geocontrole, and Geosol Geologia e Sondagens Ltda. Underground core drilling was completed by Jacobina personnel. Any unsampled core is stored on site at the core storage facility.

Jacobina geologists follow a series of Standard Operating Procedures ("SOPs") for the planning and execution of surface-based and underground-based core drilling programs. In brief, the procedures currently

used during the core drilling programs include the surveying and marking of drill collars by Jacobina survey crews prior to and after drilling, obtaining control information on the directional deviation (both azimuth and inclination) at three-metre intervals in each hole, and core is placed in labelled boxes and photographed. Jacobina geologists conduct lithological logging of drill core and recording of geotechnical observation, describing all downhole data including assay intervals. All information is recorded on digital format. The following features are recorded: core diameter, rock quality designation measurements, core recovery record, downhole inclination, lithological contacts, description of geology, recording of heavy mineral and sulphide content, type and intensity of various alterations, structural features, such as fractures and fault zones, core angles, and sampling intervals.

Drilling activities at Jacobina have been successful at expanding the extent of known gold mineralization and in defining the plunge of the higher-grade portions of mineralized zones.

A total of 357 infill drill holes with a total length of 52,051 metres were completed at João Belo North, Morro do Vento, Canavieiras South and Canavieiras North in 2023. Exploratory drilling totaling 12,110 metres was completed in 28 drill holes at Morro do Vento Main reef down dip, João Belo East, Maricota and in the Morro da Viúva areas.

At Jacobina, 106 drill holes with a total length of 38,415 metres were completed in 2023, in support of conversion of inferred mineral resources to indicated mineral resources at João Belo South, Morro do Vento, Serra do Córrego North and João Belo North. 13,282 metres of exploration drilling in 25 drill holes targeting new inferred resources were completed at Maricota, João Belo South and Morro do Vento.

It is the opinion of the Qualified Persons responsible for the preparation of the Jacobina Technical Report that the logging and recording procedures are consistent with industry standards and there are no known drilling, sampling or recovery factors that could materially affect the accuracy and reliability of the results.

### ***Sampling, Analysis, and Data Verification***

Samples from the exploration drilling programs are assayed using ALS Chemex (“ALS”) and the Jacobina laboratory as the primary laboratories and SGS Geosol Lab Ltda (“SGS Geosol”) as the secondary laboratory. Samples from the in-fill drilling programs and from the grade control channel samples are assayed using the Jacobina laboratory as the primary laboratory and using SGS Geosol located in Vespasiano, Brazil, as the secondary laboratory. The Jacobina laboratory is owned and operated by JMC and is not accredited. The ALS and SGS Geosol laboratories are independent of Pan American and JMC and are accredited under ISO/IEC 17025. The results from the QAQC program are reviewed and monitored by a dedicated quality control team who present the results by means of detailed reports on a regular basis. Sample preparation and analysis at the Jacobina laboratory is carried out according to a series of SOPs. The current methodology of sampling drill core and underground workings at Jacobina is described below.

Sampling of drill core involves collecting samples over generally 0.5 metre sample lengths respecting geological boundaries. Sample numbers are assigned and certified standards and blanks are inserted. Surface core samples are cut in half for assay and on-site storage. Underground drill core is sampled in its entirety. Exploration samples are sent for assay to the ALS laboratory in Vespasiano, Brazil, and infill drill samples are sent to the Jacobina mine laboratory.

Underground channel samples are taken at washed mine faces on a nominal sample length of 0.5 metres, respecting geologic contacts. Certified standards and blanks are inserted, and samples analyzed at the Jacobina laboratory.

The QAQC procedure adheres to industry standards by implementing rigorous protocols at various stages of sample processing by the Jacobina laboratory and the ALS laboratory. This includes monitoring of sample preparation and analytical procedures with the insertion of two pulp duplicates, two reagent blanks, and two certified standards.

The Company is of the opinion that the sample preparation, analytical, and assay procedures of drill core samples used for exploration and delineation are consistent with industry standards and adequate for use in the estimation of mineral resources.

JMC employs a comprehensive QAQC program for monitoring the assay results of exploration drilling programs, infill drilling programs, and grade control channel samples. Certified reference materials (“CRM” or standards), blanks, field and coarse crush duplicate samples and pulp duplicates are used to monitor the precision, accuracy, contamination and quality of the laboratories. These standards are purchased from Geostats Pty Ltd. and ORE Pty Ltd., both in Australia. The mine has protocols in place for describing the frequency and type of QAQC submission, the regularity of analysis of QAQC results, and failure limits. There are also set procedures to be followed in case of failure, or for flagging failures in the QAQC database. The results from the QAQC program are reviewed and monitored by a dedicated Quality Control Team who presents the results by means of detailed reports on a regular basis.

Samples are handled only by personnel authorized by JMC. Channel samples from the mining operation are delivered directly to the Jacobina laboratory each day upon completion of underground sampling. All drill core from surface and underground drill holes is taken directly to authorized exploration personnel to a drill logging and sampling area within the secured and guarded mine property. The mineralized core intervals are logged and sampled. Core samples from infill drill holes are subsequently delivered to the Jacobina laboratory and core samples from exploratory drill core samples are loaded onto an outsourced company truck and delivered to ALS laboratory in Vespasiano, Minas Gerais, Brazil.

It is the opinion of the Qualified Persons responsible for the preparation of the Jacobina Technical Report that the data used to support the conclusions presented therein are adequate for the purposes used in the Jacobina Technical Report.

### **Mineral Processing and Metallurgical Testing**

See below under “Processing and Recovery Operations”.

### **Mineral Resource and Mineral Reserve Estimates**

Management estimates that mineral reserves at the Jacobina mine, effective June 30, 2023, are as follows:

<b>Jacobina Mineral Reserves<sup>1, 2, 3</sup></b>		
<b>Reserve Category</b>	<b>Tonnes (Mt)</b>	<b>Grams of Gold per tonne</b>
Proven	27.0	2.00
Probable	21.3	2.06
<b>TOTAL</b>	<b>48.3</b>	<b>2.03</b>

Notes:

- 1 Estimated using a price of \$1,500 per ounce of gold. Totals may not add due to rounding.
- 2 Mineral reserve estimates for the Jacobina mine were prepared under the supervision of, or were reviewed by, Martin Wafforn, P.Eng., who is a Qualified Person as that term is defined in NI 43-101.
- 3 Mineral reserves are in addition to mineral resources.

Management estimates that mineral resources at the Jacobina mine, effective June 30, 2023, are as follows:

<b>Jacobina Mineral Resources<sup>1, 2</sup></b>		
<b>Resource Category</b>	<b>Tonnes (Mt)</b>	<b>Grams of Gold per tonne</b>
Measured	49.1	1.61
Indicated	45.3	1.48
Inferred	40.1	1.56

Notes:

- 1 Mineral resources exclude those mineral resources converted to mineral reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Estimated using a price of \$1,700 per ounce of gold. Mineral resources are reported at a cut-off grade of 0.84 g/t gold within conceptual mining shapes.
- 2 Mineral resource estimates for the Jacobina mine were prepared under the supervision of, or were reviewed by Camila Passos, P.Geo., who is a Qualified Person as that term is defined in NI 43-101.

Three-dimensional (3D) models of post-mineralization faults, lithology, and mineralized estimation domains were constructed in the Leapfrog Geo software package. Given the strike length of the favourable mineralized stratigraphic units outlined to date, modelling and preparation of mineral resource estimates were undertaken only for those stratigraphic units located in the vicinity of the current mine infrastructure. To facilitate modelling activities, these were divided into nine mining blocks covering a total strike length of approximately 8,350 m.

Fault surfaces were created using information from drill holes, channel samples, and geological mapping (both current and historical mapping) and were used to constrain the subsequent lithological and mineralization wireframe models. Lithological models for all major gold-bearing reefs, interbedded massive fine-grained quartzite units, and post mineralization intrusive units were modelled using available underground mapping and drilling data and were used to constrain mineralized estimation domains.

Mineralization models (or resource domains) are modelled within their respective reefs using a combination of lithology and assay criteria. Domains are modelled along the stratigraphic orientation of the conglomerates, prioritizing gold grades above 0.5 g/t gold. Domains could be extended to include grades below



0.5 g/t gold where needed to avoid non-geological discontinuities in the model. Wireframes were snapped to the limit of the selected samples in each drill hole or underground channel. Grade was estimated into the mineralised domains using top capped composites, multiple search passes and an Ordinary Kriging interpolation method.

A topographic surface of the project area as of September 2022, including one open pit mine (João Belo) and wireframe models of the completed underground excavations as of June 30, 2023, was used to code and deplete the block models. An additional depletion solid was created to define a crown pillar at surface in compliance with geomechanical and environmental restrictions. The crown pillar is approximately 30 metres beneath the topographic surface.

The estimate was classified into spatially continuous measured, indicated, and inferred categories based on drillhole spacing. Reasonable prospects for eventual economic extraction were addressed by reporting the mineral resources above an economic cut-off grade of 0.84 g/t gold within conceptual underground mining shapes. The cut-off grade was calculated using a gold price of US\$1,700 per troy ounce and metallurgical recovery of 96%. A minimum mining width of 1.5 metres was used to construct the conceptual mining shapes and an additional 0.5 metre overbreak was applied to account for dilution. Mineral resources are reported as in-situ tonnes and grades within the conceptual shapes.

JMC is not currently aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the mineral resource estimate for Jacobina.

The methodology used at Jacobina to convert mineral resources to mineral reserves involves verifying block model geometries, confirming depletion with current development, discarding near-surface resources, and designing stope shapes based on cut-off grades, geological parameters, and economic viability. Final approval based on economic and geotechnical analyses prior to conversion into mineral reserves:

The resource model is modified to exclude and flag mined out material up to the reporting date. The model then has economic modifying factors applied to determine in-situ block values. Datamine MSO is then applied to output mineable stope shapes that honor minimum mining width and apply suitable overbreak and underbreak to allow for expected mining conditions. Stope shapes are then modified as required to consider other local factors such as geotechnical, geological, metallurgical and operational constraints to arrive at suitable LOM stope shapes. A mine design that includes access, and other infrastructure is generated and the raw stopes are cut by the development design shapes to ensure no double counting of tonnages and metal in the mine schedule. Finally an economic analysis of each level and section of the mine, plus and overall analysis is undertaken to ensure the reserve estimate satisfies the definition of economic minable materials.

Mineral reserve estimates are based on assumptions that include mining, metallurgical, infrastructure, permitting, taxation, and economic parameters. Increasing costs and taxation and lower metal prices will have a negative impact on the quantity of estimated mineral reserves. There are no other known factors that may have a material impact on the estimate of mineral reserves.

### ***Mining Method***

Jacobina utilizes the sublevel longhole stoping method without backfill to achieve an average production rate of approximately 8,500 tpd from the ramp-accessed underground mines, including João Belo, Canaveiras, Serra do Córrego, Morro do Cuscuz, and Morro do Vento.

The sublevel longhole stoping method consists of fan drilling. Production drill holes vary in size from 76 millimetres to 112.5 millimetres and are drilled using three types of fan drills; these include the Solo 5 7F, the Solo DL 420, and the Solo DL 421. For the most part, drill holes are no longer than 25 metres, which helps control deviation. Backfill is not required for this mining method as the stopes are supported by pillars left in place. However, development waste is increasingly being deposited in underground voids.

Access to the different mining zones is achieved via ascending or descending spiral declines, providing a high degree of flexibility to access the reefs at different elevations. In general, level spacing is designed to keep blast hole length at (or below) 25 to 28 m to help manage drilling deviation. Mining generally progresses by applying the longitudinal retreat variant of sublevel longhole stoping, which typically considers the development of one single ore drive per stope, which is used for up-hole drilling (generally in fan patterns) and ore extraction using remotely operated LHD equipment after blasting.

### ***Processing and Recovery Operations***

The mineral processing and metallurgical testing includes cyanide leaching, gravity concentration conducted in composites samples since 2003. As part of normal plant operations and processing procedures, metallurgical analysis and testing is undertaken as required. The results of the processing plant and laboratory testing indicate excellent gold recoveries with relative low reagent requirements but relatively medium grinding media consumption.

The Jacobina mineral processing plant uses conventional gold processing methodologies to treat material from the underground mines. The processing and recovery operations include three stages of crushing followed by wet grinding. Within the grinding circuit, gravity concentration of gold is performed on a bleed stream of classification cyclone underflow. Rejects from the gravity circuit are returned to the grinding circuit. The cyclone overflow is sent to leaching in a conventional cyanide leaching process, and gold extraction follows in the carbon-in-pulp (“CIP”) tanks. Gold is stripped in an elution circuit and final gold recovery is performed in an electrowinning circuit. The sludge and solids from electrowinning are dried and smelted in an induction furnace to produce doré bars.

During 2023, the Jacobina mine processed a total of approximately 3.1 million tonnes, producing 196.1 thousand ounces of gold. From March 31, 2023 to December 31, 2023, following the Yamana Acquisition, the processing plant at Jacobina recorded throughput of 2.3 million tonnes, producing 147.8 thousand ounces of gold.

In 2023, the average gold recovery in 2023 was 94.6%. From March 31, 2023, to December 31, 2023, the processing plant at Jacobina recorded throughput of 2.3 million tonnes, producing 147.8 thousand ounces of gold.

A contract is in place with Asahi Refining Canada for refining the doré produced from Jacobina. The doré is transported to these facilities where it is refined to the London Good Delivery specification. Once refined, the good delivery of gold and silver is sold on the international market to bullion banks and financial institutions. To date, no issues have been encountered in securing the sale of the refined metal from Jacobina. No hedging takes place at this time. Please see “Risks Related to Our Business – Trading Activities and Credit Risk”.

There are no known processing factors or deleterious elements that could have a significant effect on potential economic extraction.

Please see “Risks Related to Our Business – Trading Activities and Credit Risk”.

The revenues per type of doré produced at the Jacobina mine since our acquisition of the mine in March 2023 are as follows:

2023	Revenue <sup>1, 2, 3</sup>	Quantity Sold
Gold in Doré	\$287.7 million	146,663 ounces of gold

Notes:

1 Consists of sales to arm’s length customers.

2 Calculated as gross revenue plus export credit incentives (as applicable), less treatment and refining charges and export taxes.

3 Results in table above are as of March 31<sup>st</sup>, 2023, to December 31<sup>st</sup>, 2023.

***Infrastructure, Permitting, and Compliance Activities***

The Jacobina mine is a mature operating mine and site infrastructure that is fully developed to support the existing mine production.

Jacobina currently operates five mines and has all required infrastructure necessary for a mining complex. Currently, the major facilities associated with Jacobina include a conventional flotation mill, with leach and CIP tanks, which produces gold doré, mine and mill infrastructure including office buildings, shops, and equipment.

The tailings produced at the Jacobina mill are presently stored in a fully-lined tailings storage facility, TSF B2, located 2.5 km north of the mineral processing plant. TSF B2 consists of a cyclone sand dam built following a downstream construction method. The previous tailings facility, TSF B1, is decommissioned and has not been in operation since 2012. The Jacobina mine requires an expansion of its tailings storage capacity to support the current LOM past year 2032 based on existing production schedules. As such, the mine is conceptualizing building and running a filtration plant to handle the tailing that exceeds the current B2 Dam capacity over the LOM and to store it in a filtered tailings stack.

Permits and licenses required by various government agencies covering the operation of the mines, mill, and TSF have been obtained. The Jacobina mine has the operational licenses required for operation according to national legislation. During the fourth quarter of 2021, Jacobina received an expansion permit, allowing throughput to increase up to 10,000 tpd.

Jacobina has implemented an integrated management system covering health, safety, environment, and community through internationally accredited systems. JMC has many active programs to cover all aspects of the environment in and around the mine complex, including an Environmental Complex Project, an Environmental Control and Monitoring Plan, a Water Balance and Use program, a Recovery Plan for Degraded Areas, and a Solid

Residue Management Program. JMC also carries out several environmental initiatives such as environmental education, environmental emergency brigade, and maintenance of certifications such as ISO 14001.

An environmental monitoring program is in place at Jacobina for weather, surface water quality, groundwater quality, air quality and emissions, flora and fauna, and ambient noise. No environmental issues have been identified that could materially impact the ability to extract the mineral resources and mineral reserves.

No social issues have been identified. At present, the operations at Jacobina are a positive contribution to sustainability and community well-being. Jacobina has demonstrated a commitment to employee health, safety, and well-being; community programs; and ongoing outreach and data collection to support issues management and mitigation. Jacobina has established and continues to implement its various policies, procedures, and practices in a manner aligned with EIBP standards.

A closure cost estimate for Jacobina was prepared based on a government-approved closure plan, engineering estimates, local rates, and contractor quotes. The estimate is updated as necessary. Pan American has estimated the present value of the site reclamation costs for the Jacobina mine to be approximately \$19.9 million effective December 31, 2023.

### ***Capital and Operating Costs***

In 2023, capital additions at the Jacobina mine were \$69.9 million, with \$23.8 million invested in project capital relating to plant facility infrastructure upgrades and mine development. The remaining balance of the capital expenditures were invested in near-mine exploration, lease payments related to ore haulage, tailings storage facility investments and mine equipment replacements. In 2023, production costs at the Jacobina mine were \$125.8 million. The foregoing capital and production costs reflect the period from April through December following Pan American's acquisition of Yamana.

Capital investments in 2024 are expected to be between \$67.0 million to \$71.0 million, comprising of \$53.0 million to \$55.0 million in sustaining capital for near mine brownfield exploration expenditures, lease payments related to ore haulage and mine equipment replacements and refurbishments and \$14.0 million to \$15.5 million in project capital for plant expansions and mine optimization studies.

### ***Exploration, Development, and Production***

The near-mine exploration drilling budget for 2024 at Jacobina includes 56,300 metres of drilling. An additional 1,800 metres of greenfield exploration drilling is also budgeted. In 2024, we anticipate producing between 185.0 thousand and 203.0 thousand ounces of gold from the Jacobina mine.

## **D. Chile**

### **(i) El Peñon Mine**

#### ***Project Description, Location, and Access***

El Peñon is located approximately 165 km southeast of the city of Antofagasta. The mine site, situated approximately midway between the Pacific Coast and the border with Argentina, is in the Atacama Desert, a desert plateau with one of the driest climates on earth. The mine has been in operation since 1999 and it operates on a year-round basis. There are no communities close to El Peñon.

The El Peñon mine is owned by Pan American through its wholly-owned subsidiary Minera Meridian. Yamana acquired the property in late 2007 and Pan American acquired a 100% interest in the property pursuant to the Yamana Acquisition in 2023. The mineral rights consist of 443 individual mining exploitation claims that comprise an area measuring 92,387 hectares that covers the El Peñon core mine area, the Fortuna area, the Laguna area, the Pampa Augusta Vitoria area, and the surrounding exploration lands.

Minera Meridian is subject to a royalty tax between 5% and 14% based on the mining gross profit margin and currently pays approximately a 5% to 7% royalty tax on taxable mining income. In addition, El Peñon is also subject to First Category Tax (Corporate Income Tax) in Chile at a rate of 27%.

Chile applies an employee profit-sharing payment which requires Minera Meridian to share 30% of its taxable income with its workers but is capped at 25% of the employee's salary or 4.75 times by the monthly minimum wages.

A 2% NSR royalty is payable to Maverix as agreed as part of the purchase of the Nado claims covering the Fortuna area and a 2% NSR royalty is payable to Soquimich Comercial SA for claims Providencia 1, 2, 3, 4, and 5 and claims Dominador 1, 2, and 4. These claims are also located in the Fortuna area.

Pan American is not aware of any material, unidentified environmental liabilities on the property or other significant factors and risks that may affect access, title, or the right or ability to perform mining and exploration work on the property.

### ***History***

The discovery of the El Peñon gold-silver deposit was the result of successful grassroots exploration carried out throughout the early 1990s. Regional exploration focused on Early to Mid-Eocene volcanic belts in northern Chile and led to the acquisition of the El Peñon property in 1993. Trenching carried out that year was followed by a 13-hole drilling program which led to the discovery of significant gold-silver mineralization. The next year, the first hole of a follow-up program intersected 100 metre grading 10.9 g/t Au and 123.4 g/t Ag in what eventually became the Quebrada Orito deposit. In July 1998, the property was advanced into production, and construction on a 2,000 tpd mine and mill facility commenced later that year. Production began in September 1999, ramping up to full capacity by January 2000 and has continued un-interrupted to the present day.

Since September 1999, the operation has run continually at design and increased capacity, treating both open-pit and underground ore. Up to the end of 2022, the mine had processed approximately 26.4 Mt of ore grading 7.15 g/t gold and 190.9 g/t silver, producing 5.7 million ounces of gold and 140.7 million ounces of silver, as shown in the table below. The mine's current production rate, the result of the right-sizing of the operation initiated in late 2016, increased free cash flow generation and reduced capital expenditures while ensuring the long-term sustainability of the mine, matching production rate with mineral reserves and mineral resources replacement.

### ***Geological Setting, Mineralization, and Deposit Types***

El Peñon is located in the Central Depression (also known as the Central or Longitudinal Valley), that extends for 650 km from the Chile-Peru border in the north to south-central Chile in the south. In the Atacama Desert, this valley corresponds in part to a Late Cretaceous to Paleogene volcanic belt that separates the Mesozoic magmatic arc, exposed in the Coast Mountains located to the west, from the Paleozoic and Triassic volcanic and sedimentary assemblages of the Domeyko Cordillera to the east. The Late Cretaceous to Eocene volcanic and intrusive rocks within the Central Depression consist of an alkali-enriched calc-alkaline bimodal suite. Rocks consist of basaltic andesite to rhyolitic lavas and tuffs, subvolcanic porphyritic intrusions, and granitoid stocks. This belt is host to many epithermal deposits and subvolcanic porphyry systems.

The local area is underlain by a fault-bounded north-south trending panel of Paleocene to Eocene volcanic rocks. This panel is bounded to the east and west by rocks of Permian to Cretaceous age. Formation names and ages as reported below have been updated by extensive recent work by the Servicio Nacional de Geología y Minería, which resulted in significant changes from stratigraphic divisions reported in earlier reports. The Cretaceous sequence (95-90 Ma) dominates and consists of volcanic and minor sedimentary rocks of the Paradero del Desierto Strata Formation and continental sedimentary and volcanic rocks Quebrada Mala Formation. The Paradero del Desierto Strata outcrops northwest of the deposit area. The Upper Cretaceous Quebrada Mala Formation is present to the west, north, and northeast of El Peñon; it consists of volcanic rocks varying in composition from basaltic andesite to high-silica rhyolite; textures vary from flows to ignimbrites (Astudillo et al, 2017; Ferrando et al., 2013). Ignimbrites and other rock types formerly assigned to the Augusta Vitoria Formation are now included in the Quebrada Mala Formation. Away from the deposit, these rocks are intruded by large granitic to dioritic stocks dated at between 40 and 50 Ma.

Surface exposures at El Peñon are not common, and much of the mapping for the area is based on float. The property is mostly underlain by Late Cretaceous to Early Eocene pyroclastic flows and lavas, volcanoclastic breccias, and tuffs of basaltic to rhyolitic composition. Several thin Early Cretaceous rhyolite tuff and dacite to andesite flow layers occur in the northern part of the property. These rocks are intruded by Late Cretaceous diorite and monzodiorite stocks and dacite domes. The rocks hosting gold-silver mineralization at El Peñon are near-horizontal to gently-dipping Paleocene to Eocene basaltic to rhyolitic volcanic rocks. The stratigraphy consists of a lower sequence of volcanic breccias and andesitic to basaltic flows overlain by rhyolitic to dacitic pyroclastic rocks, dacitic to andesitic flows, and volcanic breccias. Rhyolitic intrusions, domes, and associated flows are intercalated with earlier volcanic units.

The gold-silver mineralization at El Peñon is hosted in near-horizontal to gently dipping Paleocene to Eocene basaltic to rhyolitic volcanic rocks. The El Peñon deposit comprises many individual tabular and steeply dipping zones that are amenable to mining by both underground and surface methods. Vein thickness ranges from decimetre-scale to more than 20 metres. The strike length of individual mineralized zones ranges from less than 1 km to 4 km and the down-dip extent reaches up to 350 metres. The veins strike predominantly north-south and dip steeply to the east and west. Vein textures often display crustiform textures, although the highest-grade gold and silver mineralization are associated with massive banded quartz-adularia. Gangue minerals occur as open space filling as well as replacements of primary host rock mineral phases.

Gold and silver mineralization occurs as disseminated electrum, acanthite, native gold, native silver, silver sulphosalts, and silver halides; these minerals are hosted in a gangue dominated by quartz, adularia,

carbonate, and clay. Precious metals occur mainly as micron- to millimetre-size subrounded and irregular grains of electrum. Two phases of electrum are present: a primary phase, which contains approximately 55 to 65% gold, and a secondary phase where the gold content is usually greater than 95%, due to the supergene remobilization of silver.

Sulphide minerals are relatively rare, except at the northeastern portion of the El Peñon mine area. This paucity of sulphides may be due to oxidation, or to an initial overall low abundance of sulphides as would be expected in a low-sulphidation environment. Iron- and manganese-oxyhydroxides are common, with only trace occurrences of relict sulphides. In order of abundance, trace amounts of pyrite, galena, sphalerite, chalcocite and covellite occur locally.

Age-dating of adularia from the veins at El Peñon suggests that mineralization took place at around 52 Ma to 53 Ma (Early Eocene). Two mineralization and alteration events have been defined from fluid inclusion studies. The principal mineralization event resulted from circulation of neutral reduced fluids that replaced host-rock phenocrysts and groundmass by quartz, adularia, albite, carbonate, clays, calcite, and chlorite. It also produced quartz-adularia flooding and breccia-filling in the vicinity of the veins. Another, more widespread, alteration process was derived from acidic oxidized hydrothermal solutions. This event resulted in the formation of lithocaps of quartz-alunite alteration, quartz-alunite breccia-filling, with minor copper and silver and little or no gold.

El Peñon is classified as a low- to intermediate-sulphidation epithermal gold-silver deposit associated with steeply dipping fault-controlled veins emplaced following rhyolite dome emplacement. Gold and silver mineralization consists of disseminations of electrum, native gold and silver, acanthite, silver sulphosalts, halides, and accessory pyrite occurring with quartz, adularia, carbonates, and clay minerals. Epithermal deposits represent shallow parts of larger, mainly subaerial, hydrothermal systems formed at temperatures as high as about 300°C and at depths from about 50 to as much as 1,500 metres below the water table. Analogous epithermal gold-silver deposits set in an extensional-transensional, continental-margin arc are the Comstock Lode in Nevada, Martha Hill in New Zealand, Peñasquito in Mexico, and Hishikari in Japan.

### ***Exploration***

Prior to the Yamana Acquisition, Yamana had continually expanded the footprint of mineralization by geological mapping, geochemical characterization, geophysics, and abundant surface and underground drilling within the northeast trend, first starting at the El Peñon area, with Quebrada Orito in the southwest and extending to Angosta in the northeast. Exploration has also been successful at the Fortuna and Pampa Augusta Vitoria areas located to the southwest and to the north of El Peñon, respectively. Geophysical anomalies and positive drill intersections remain to be followed up in all areas. GoldSpot Discoveries Corp. was contracted in 2019 to apply machine learning to target unknown mineralization. Exploration work completed to date has defined 40 main mineralized zones and subsidiary veins, within ten geological trends.

Exploration conducted between 2018 to 2020 included infill drilling, expansion drilling, and district exploration.

At El Peñon, drilling over the period from 2021 to 2023 has totalled approximately 285,018 metres, including 109,843 metres of infill drilling to convert inferred resources to measured and indicated resources, and 175,175 metres of exploration drilling to generate new inferred resources close to areas of mine infrastructure. In 2023, 63 infill drill holes with a total length of 20,149 metres were completed in proximity to areas of current and planned production at seven areas of the core mine, including at Pampa Campamento, El Valle, Martillo Flat SSE, Pampa Campamento (-35) splay, Sorpresa Sur, Sorpresa Sur Sur and Vista Norte. Infill drilling was also conducted at the Chiquilla Chica vein, located to the southwest of the core mine. Exploration drilling in 2023, totaling 41,948 metres, was completed in 112 drill holes to convert new inferred resources at Pampa Campamento, El Valle and Martillo Flat SSE, as well as 14 additional veins in the core mine array, and at the Chiquilla Chica and Tostado Sur veins, to the southwest of the core mine. Approximately 38% of exploration drilling metres completed in 2023 targeted the Pampa Campamento and El Valle vein systems, extending mineralization along strike and to depth at these important structures.

Exploration results at El Peñon continue to highlight the expansion potential of the mine and the ability to replenish mineral reserves and mineral resources so as to extend the LOM past its current mineral reserve base.

### ***Drilling***

Systematic testing of the gold-silver-bearing zones was started by Meridian Gold in 1993 and continued until 2007. Yamana drilled continuously on the property since 2007 to expand the mineral resources and replace depletion of mineral reserves. To the end of December 2021, over three million metres have been drilled at El Peñon in the Fortuna, El Peñon, and Pampa Augusta Vitoria areas. This includes 118,247 metres completed in 2022 (62,861 metres exploration and 41,874 metres infill drilling and 13,512 metres of district exploration drilling).

Surface drilling is mostly collared with RC and converted to core drilling prior to intersecting the mineralized zone. At least one hole per 30 metre section is drilled as a core drill hole. Core size is HQ (63.5 millimetre core diameter), sometimes reduced to NQ (47.6 millimetre core diameter). RC holes are drilled with 146 millimetre-diameter equipment, which produces a hole approximately 152 millimetres in diameter. Drilling on the mine property from 2018 to 2021 was performed by AK Drilling International. In 2023, drilling was carried out by ICEM SA and Basalto Drilling SpA. Drillhole collar locations are surveyed and marked by El Peñon crews. Directional deviation is surveyed using a REFLEX multi-shot survey instrument for underground drillholes and an Axis Mining gyroscope for surface holes. Lithological logging is carried out for both drill core and RC chips by company geologists and technicians. Data, including drill type, collar coordinates, core diameter, inclination, percent core recovery, RQD measurements, lithologic contacts, descriptive geology, structural features, mineralization details, and photographic records, are recorded on digital tablets and plotted using commercial software.

Drill core recoveries are generally good (>95%) but are moderately lower at the Quebrada Orito and El Valle veins (>85%). The lower core recovery in those veins, however, does not have significant impact on the quality of the samples.

Collars of surface drill holes are preserved by a PVC casing. A wooden stake is placed close to each collar; it is affixed with metal plates, on which the code, azimuth, dip, and other relevant drill hole information is recorded.

The Company is of the opinion that the logging and recording procedures are consistent with industry standards and there are no known drilling, sampling or recovery factors that could materially affect the accuracy and reliability of the results.

### ***Sampling, Analysis, and Data Verification***

Analytical samples include both drill core and channel samples from surface and underground exploration and infill drilling programs. Analytical results are used for short-term forecasting and grade control as well as for estimation of mineral resources and mineral reserves.

Drillhole sampling procedures adhere to industry standards for sample handling and logging. Technicians verify core depths and record geotechnical characteristics (recovery, fractures and RQD). Geological descriptions are entered into a data management system for lithology, alteration, structures, and mineralization.

Exploration drill holes are sampled in their entirety and infill resource drillholes are sampled respecting mineralization zones. Sample lengths for exploration holes vary from 0.35 metres to 0.5 metres. For infill drill holes, sample lengths range from 0.2 metres and 0.5 metres.

Underground mine sampling procedure involves systematic sampling by production geologists and technicians after each gallery advance. Samples are taken along a line of constant elevation, respecting geological contacts, lithology and mineralization. Underground sample results are used for short-term forecasting, grade control, and Mineral Resource grade estimation models.

Samples are handled only by authorized personnel, ensuring strict control and security. Mine channel samples are delivered to the El Peñon laboratory each day, while drill core is logged and sampled by exploration personnel within secured mine premises. Mineralized core intervals are logged, sampled, and labeled before transported to the primary laboratory in Antofagasta. Additionally, the remaining half of split core from exploration drill holes is stored on-site for control purposes, with photographic records maintained for reference.

The Geoassay Group Ltda. ("Geoassay") laboratory in Antofagasta, Chile, was the primary laboratory for exploration and infill drilling samples prior to February 2018. Geoassay is independent of Pan American and was not certified at the time. Starting in February 2018, samples from exploration and infill drilling were prepared and analyzed at SGS Minerals S.A. ("SGS") laboratories in Antofagasta and Santiago, Chile. The SGS laboratories are independent of Pan American and hold ISO/IEC 17025 certification. SGS moved its headquarters from Antofagasta to Santiago in September 2019 and transferring the El Peñon samples from Antofagasta to Santiago created significant delays and problems with accuracy. The samples from exploration drilling were processed at SGS in Antofagasta from February 2018 to September 2019, after which they were processed at the Santiago laboratory until March 2020. Samples from infill drilling were processed at SGS in Antofagasta from February 2018 to September 2019, after which they were processed in the Santiago laboratory until May 2020. For a short period in late 2018, Intertek Caleb Brett Chile S.A. ("Intertek") laboratory in Copiapo was also used as a primary laboratory, in parallel with SGS, to help provide analytical results in time for year-end reporting. Intertek is independent of the Company and was certified to ISO9001:2015 standards by ABS Quality Evaluations. The primary laboratory for exploration samples was changed to Geoassay in Antofagasta starting in March 2020. In May 2020, Geoassay became the primary laboratory for both exploration and infill drilling program samples. Geoassay is a local laboratory independent of Pan American and is in the process of being certified to ISO/IEC 17025 standards.

Umpire laboratory check assays were carried out at Intertek laboratory in Copiapo, Chile, until February 2019 and at Geoassay's laboratory in Antofagasta, Chile, until May 2020, when it became the primary laboratory. Intertek is independent of Pan American and was certified to ISO9001:2015 standards by ABS Quality Evaluations during the time it was used as Yamana's umpire laboratory, but not to ISO/IEC 17025 standards. The Geoassay laboratory is a local laboratory independent of the Company and is in the process of being certified to ISO/IEC 17025 standards. The selection process for a new umpire laboratory is ongoing. Samples from underground channels are assayed at the in-house El Peñon laboratory. This laboratory is owned and operated by the Company and is certified to ISO/IEC 17025 standards. The drillhole sample preparation and analysis procedures described adhere to industry standards for mineral exploration and analysis.

SGS, Geoassay, Intertek, and El Peñon laboratories follow a similar sample preparation procedure that includes sample sorting, logging, weighing and drying prior to crushing. Crushed samples are split to obtain 1 kg of material, which is pulverized to a pulp. Cleaning protocols are implemented between samples, with sterile quartz inserted every 10 samples and granulometric controls conducted on a subset of samples. Two sets of pulps (250 g each) are prepared with a master pulp (pulp A) used for the analysis and the remaining material from pulp A combined with pulp B returned to site for storage.

For gold analysis, 30g (prior 50 g samples) samples undergo fire assay followed by atomic absorption spectrometry (AAS) at the SGS, Geoassay, and Intertek laboratories. Samples containing more than 5 g/t gold are finished by gravimetry. Alternatively, El Peñon laboratory conducts analysis solely by gravimetry.

SGS, Geoassay, and Intertek laboratories uses four acid digestion and AAS on a 2g sample for silver determination while El Peñon laboratory utilizes fire assay. If the silver content exceeds 220 g/t, gravimetry is employed. At the El Peñon lab, silver is determined via fire assay and finished by gravimetry.

Pan American employs a comprehensive QAQC program for the El Peñon exploration drilling programs, infill drilling programs, and grade control channel samples. The program applies the following steps to monitor the accuracy and bias of the gold and silver: (i) insertion of CRMs or standards; (ii) monitoring of contamination in preparation and analysis by inserting blanks in the preparation and analytical sampling streams; (iii) control of the precision by taking duplicates during preparation and analysis; and (iv) sending pulp samples for umpire check assaying at secondary laboratories. The results from the QAQC program are reviewed and monitored by geologists monthly.

The Company is of the opinion that the sample preparation, sample security, and analytical procedures at El Peñon are adequate and consistent with industry standards.

It is the opinion of the Qualified Persons responsible for the preparation of the El Peñon Technical Report that the data used to support the conclusions presented therein are adequate for the purposes used in the El Peñon Technical Report.

### ***Mineral Processing and Metallurgical Testing***

See below under "Processing and Recovery Operations".

### ***Mineral Resource and Mineral Reserve Estimates***

Management estimates that mineral reserves at the El Peñon mine, effective June 30, 2023, are as follows:

<b>El Peñon Mineral Reserves<sup>1, 2, 3</sup></b>			
<b>Reserve Category</b>	<b>Tonnes (Mt)</b>	<b>Grams of Silver per tonne</b>	<b>Grams of Gold per tonne</b>
Proven	0.9	213	5.35
Probable	5.2	148	4.21
<b>TOTAL</b>	<b>6.1</b>	<b>158</b>	<b>4.38</b>

**Notes:**

- 1 Estimated using a price of \$18 per ounce of silver and \$1,250 per ounce of gold. Totals may not add due to rounding.
- 2 Mineral reserve estimates for the El Peñon mine were prepared under the supervision of, or were reviewed by Christopher Emerson, FAusIMM, and Martin Wafforn, P.Eng., who are each Qualified Persons as that term is defined in NI 43-101.
- 3 Mineral reserves are in addition to mineral resources.

Management estimates that mineral resources at the El Peñon mine, effective June 30, 2023, are as follows:

<b>El Peñon Mineral Resources<sup>1,2</sup></b>			
<b>Resource Category</b>	<b>Tonnes (Mt)</b>	<b>Grams of Silver per tonne</b>	<b>Grams of Gold per tonne<sup>3</sup></b>
Measured	1.1	146	4.10
Indicated	6.7	99	3.04
Inferred	18.5	51	1.36

Notes:

- 1 Mineral resources exclude those mineral resources converted to mineral reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Estimated using a price of \$18 per ounce of silver and \$1,250 per ounce of gold. Mineral resources are reported within a final pit outline or within conceptual mining shapes and above a mineral resource cut-off grade.
- 2 Mineral resource estimates for the El Peñon mine were prepared under the supervision of, or were reviewed by Christopher Emerson, FAusIMM, and Martin Wafforn, P.Eng., who are each Qualified Persons as that term is defined in NI 43-101.
- 3 Inferred resources are comprised of oxide mineralization.

Out of a total of 37 veins, 24 were modeled using Leapfrog software, taking into account information from drilled holes, interpretations of geological sections, lithological and structural data. The remaining 13 veins, corresponding to sectors with no recent activity, were previously modeled in the Vulcan software. Only intercepts of significant structures, such as quartz veins and hydrothermal breccias, were considered for the construction of the models. The chemical analysis grades in the mineralized sections corresponding to the vein were composed to a length equivalent to the full width of the vein. For the control of high grades in the estimation, capping constraints are established through a statistical analysis aimed at identifying outlier laws. This process includes inspecting probability plots, analyzing histograms, applying the Parrish method, and reviewing historical production data. For veins updated in Leapfrog, a restrictive capping per domain is applied. For veins modeled in Vulcan that have not been updated, controlling the influence of outliers also includes a High Yield Restriction. Experimental correlograms were calculated following the strike, mantle and plunge directions for each vein, using a combination of data obtained from boreholes and gutters. In the analysis of the correlograms, each domain was considered independently. The values corresponding to the nugget effect were derived from down-the-hole correlograms. The aforementioned analyses were carried out in the Supervisor software.

Reasonable prospects for eventual economic extraction were addressed by reporting the mineral resources above an economic cut-off value of \$96.86 per tonne, which are contained within conceptual underground mining shapes. The cut-off value used corresponds to 75% of the break-even cut-off value used to estimate the mineral reserves. A minimum mining width of 0.6 metres and an additional 0.3 metres of each hangingwall and footwall overbreak (to account for dilution) were used to construct the conceptual mining shapes. Mineral resources are reported as in situ tonnes and grades within the conceptual shapes, exclusive of mineral reserves.

The Company is not currently aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the mineral resource estimate for El Peñon.

The conversion of mineral resources to mineral reserves adheres to industry standards, involves designing selective mining units (SMUs) based on economic factors and considering only measured and indicated mineral resources. SMUs with positive economic scores are analyzed for inclusion in the mineral reserve inventory, accounting for development costs and geomechanical considerations. Supplementary lower-grade drift segments may be added to reserves if it enhances cash flow, while SMUs with majority measured or indicated blocks are classified as proven or probable mineral reserves.

The resource model is modified to exclude and flag mined out material up to the reporting date. The model then has economic modifying factors applied to determine in situ block value. Mineable Shape Optimizer of Datamine is then applied to output mineable stope shapes (drift and bench method) that honor minimum mining width and apply suitable overbreak and underbreak to allow for expected mining conditions. Stope shapes are then modified as required to consider other local factors such as geotechnical, geological, mineralogical and operational constraints to arrive at suitable LOM stope shapes. A mine design that includes access, and other infrastructure is generated and the raw stopes are cut by the development design shapes to ensure no double accounting of tonnages and metal in the mine schedule. Finally an economic analysis of each level and section of the mine, plus and overall analysis is undertaken to ensure the mineral reserve estimate satisfies the definition of economically minable materials. Mineral reserve estimates are based on assumptions that include mining, metallurgical, infrastructure, permitting, taxation, and economic parameters. Increasing costs and taxation and lower metal prices will have a negative impact on the quantity of estimated mineral reserves. There are no other known factors that may have a material impact on the estimate of mineral reserves.



## ***Mining Method***

Ore from underground mines have recently been - and will continue to be - the main source of feed for the El Peñon mill. There is also a low-grade stockpile.

The various underground mining zones are accessed by ramps; this type of access is suitable for this mine in light of its shallow depth. The underground workings of the core mine extend approximately 10 km along strike and span a vertical extent of approximately 500 metres, measured from the highest portal collar elevation to the bottom-most mine workings. The ramps provide flexibility for rapid adjustments for changes in direction and elevation and allow access to the veins at appropriate elevations.

The main mining method utilized at El Peñon is the bench-and-fill method, which is a narrow longhole stoping method that uses a combination of rockfill and cemented rockfill. The method involves ore development at regular level intervals, which, at El Peñon, range generally between 10 and 20 metres. Due to the narrow vein widths, a “split-blasting” technique is used in many areas of the mine to reduce dilution in secondary development of ore zones. The minimum mining width of a split blast is of 0.6 metres, plus 0.5 metres of total overbreak, generating a minimum blast void of 1.1 metres width. Once the split-blast ore is mucked out, the remaining waste is slashed out and used for rockfill purposes. The split-blasting technique has been refined and improved at El Peñon since 2016, reducing the achievable ore mining width from 2.1 metres to 1.1 metres, minimizing dilution and ore loss, and improving productivity for faster face cycle times. The result is increased gold and silver mining grades. In some cases, development rounds that would have previously been mined as waste if blasted to the full drift dimensions are now mined selectively as separate ore and waste rounds, resulting in increased mineral reserves.

All underground mining operations are carried out by employees of the Company.

The plant has a processing capacity of up to 4,200 tpd and low-grade stockpile is used to utilize this capacity. The LOM plan remains fully supported by mineral reserves and mineral resources. Mineral resources are comprised of multiple veins at different grades.

## ***Processing and Recovery Operations***

The mineral processing and metallurgical testing includes: leaching tests to address gold and silver recoveries as well as cyanide consumption, sedimentation and filtration tests, and mill time and Bond work index tests. Tests results have allowed obtaining a gold and silver recovery matrix based by zone, ore type and grade range, which is used to calculate NSR on the block models.

The El Peñon mine uses a conventional cyanide leaching to produce gold and silver in doré bars. The processing plant and associated facilities process run-of-mine as well as stockpile ore using crushing, grinding, leaching, counter-current decantation, zinc precipitation, smelting and a tailings filtration plant. Metallurgical recoveries in 2023 averaged 95% for gold and 89% for silver.

During 2023, a total of 1.4 million tonnes were processed, producing 127.0 thousand ounces of gold and 3.8 million of ounces of silver. From March 31, 2023 to December 31, 2023, the processing plant at El Peñon processed throughput 1.0 million tonnes, producing 95.7 thousand ounces of gold and 2.9 million ounces of silver respectively.

The El Peñon mineral processing plant and associated facilities process run-of-mine as well as stockpiled ore. Comminution comprises a single stage of crushing followed by wet grinding in a semi-autogenous grinding (“SAG”) mill operating in series with a ball mill; these feed a battery of hydrocyclones. Leaching starts at the SAG mill, where sodium cyanide is added as a leaching agent. The hydrocyclones overflow is subsequently clarified and leached in reactors with mechanical agitators. The leached pulp is finally transported by gravity to a CCD thickener circuit to wash the pulp and recover the pregnant solution for gold and silver by zinc precipitation and refining to doré.

El Peñon produces gold in the form of doré bars and there are contracts in place with MKS PAMP and Argor Heraeus in Switzerland, for refining the doré produced on site. The doré is transported to these facilities where it is refined to the London Good Delivery specification. Once refined, the good delivery of gold and silver is sold on the international market to bullion banks and financial institutions. To date, no issues have been encountered in securing the sale of the refined metal from El Peñon. No hedging takes place at this time. Please see “Risks Related to Our Business – Trading Activities and Credit Risk”.

The revenues per type of doré produced at the El Peñon mine since it was acquired in March 2023 are as follows:

2023	Revenue <sup>1, 2, 3</sup>	Quantity Sold <sup>3</sup>
Gold and Silver in Doré	\$259.4 million	97,290 ounces of gold 3,001,890 ounces of silver

Notes:

- 1 Consists of sales to arm's length customers.
- 2 Calculated as gross revenue plus export credit incentives (as applicable), less treatment and refining charges and export taxes.
- 3 Results in table above are as of March 31<sup>st</sup>, 2023, to December 31<sup>st</sup>, 2023.

### ***Infrastructure, Permitting, and Compliance Activities***

The El Peñon mine is a mature operating mine and site infrastructure that is fully developed to support the existing mine production.

The tailings produced at the El Peñon mill are stored in a filtered tailings stack storage facility, located 1.5 km southeast of the mineral processing plant. The current filter stack stores approximately 25.4 Mt of tailings. The final design considers an additional storage capacity of 24.5 Mt.

El Peñon consists of historical open pits, underground mining operations, a process plant, and other support infrastructure, including waste dumps and a filtered tailings facility. The approved plant capacity is 4,800 tpd. The major assets and facilities associated with El Peñon are: the mining and processing infrastructure, which include office buildings, shops, and equipment; a processing plant which produces gold doré by crushing, grinding, leaching, counter-current decantation concentrate solution recovery, zinc precipitation and refining; concrete and cemented backfill plants, and a filtered tailings stack storage facility.

El Peñon is connected to the National Electric Grid through a 66 kV transmission line connected to the Palestina substation.

Minera Meridian has all required permits to continue carrying out mining and processing operations on the El Peñon property. The El Peñon operation submitted its first EIA in 1997 to the Chilean Environmental Impact Assessment System. The Environmental Commission of the Region of Antofagasta approved the application with Exempt Resolution Nr. 043 in 1998. The El Peñon operation has undergone a series of modifications since its original EIA submission. Required Environmental Qualification Resolutions ("RCAs") were granted through a series of Declaration of Environmental Impacts ("DIAs").

El Peñon has developed a closure plan covering all current and approved facilities; this plan is in accordance with applicable legal requirements and updated regularly as the LOM is extended. The approved 2019 mine closure plan addresses progressive and final closure actions, post-closure inspections, and monitoring. A new DIA was submitted in February 2021 considering an extended LOM plan as a result of mineral reserves increases over the past three years. Other sectoral licenses and permits have been obtained and applications for renewals have been filed. The operation has not been subject to sanctioning for environmental compliance by any of the regulatory agencies.

El Peñon has implemented an integrated management system covering health, safety, environment, and community through internationally accredited systems that include the ISO 14001 Environment Management System and the OSHAS 18001 Occupational Health and Safety Management System. A risk assessment matrix has been developed for El Peñon operation that integrates risk matrices for ISO 14001:2015 and OHSAS 18001:2007.

Beginning in 2020, the Company began the implementation of the Mining Association of Canada's Towards Sustainable Mining framework as well as the World Gold Council's Responsible Gold Mining Principles, each of which included internal assessments and will require external audits within a three-year timeframe. Activities for 2021 include the process of certification for ISO 45001 (replacing OSHAS 18001) and recertification of the ISO 14001 Environment Management System. A standard for operational processes has been developed for the management of other hazardous and non-hazardous solid waste (Certified NCh-ISO 17025 INN – Instituto de Normalización Chilena).

Water conservation is a primary focus at El Peñon. The water management system at El Peñon has been designed as a closed circuit. Process water from the mill is recovered in the tailings filter plant and recirculated back to the processing plant. Even though no communities are located near El Peñon, Pan American has made a number of commitments to the well-being, health, and safety of the communities in the area. As such, the social and community activities conducted by Pan American are concentrated in the Taltal District and are of philanthropic orientation.

A closure cost estimate for El Peñon was prepared based on a government-approved closure plan, engineering estimates, local rates, and contractor quotes. The estimate is updated as necessary. Pan American has estimated the present value of the site reclamation costs for the El Peñon mine to be approximately \$28.9 million effective December 31, 2023. See “Narrative Description of the Business – Environment, Community and Sustainability” for further disclosure regarding forward-looking statements related to reclamation costs.

### ***Capital and Operating Costs***

In 2023, capital additions at the El Peñon mine were \$18.6 million, primarily on near-mine exploration and mine equipment lease payments, replacements and refurbishments. In 2023, production costs at the El Peñon mine were \$184.1 million. The foregoing capital and production costs reflect the period from April through December following Pan American’s acquisition of Yamana.

Capital investments in 2024 are expected to be between \$30.0 million to \$32.0 million largely relating to near-mine brownfield exploration and infill drilling expenditures; mine equipment replacements and refurbishments, including related lease payments; and mine infrastructure.

### ***Exploration, Development, and Production***

We expect to produce approximately 120.0 thousand to 135.0 thousand ounces of gold and 3.6 million to 3.9 million ounces of silver from the mine in 2024. We currently plan to undertake approximately 90,000 metres of exploration drilling at the El Peñon mine in 2024.

## **II. Non-Operating and Development Properties**

### **(i) Escobal Mine**

#### ***Project Description, Location, and Access***

The Escobal mine is an underground silver-gold-lead-zinc mine in Guatemala, approximately 40 km east-southeast of Guatemala City and 2 km east of the town of San Rafael Las Flores. Access to the Escobal mine is via 70 km of paved highway from Guatemala City.

The Escobal mine is 100% owned by Pan American through its wholly-owned subsidiary, PASG, and comprises two mineral licenses covering approximately 29.2 km<sup>2</sup>. These include the Escobal Exploitation License (the “Escobal mining license”) covering 20 km<sup>2</sup>. PASG also previously held the Juan Bosco Exploration License covering 9.2 km<sup>2</sup>, which was not renewed and is no longer valid. The Escobal mining license is valid for 25 years from receipt of the license on April 3, 2013, and is renewable for an additional 25 years. Exploration licenses in Guatemala are granted for an initial period of three years, which can be extended for two additional two-year periods, for a total holding period of seven years; after which, application must be made for an exploitation license or new exploration concession.

Some communities and non-governmental organizations (“NGOs”) have been vocal and active in their opposition to mining and exploration activities in Guatemala. In July 2017, the Escobal mining license was suspended as a result of a court proceeding initiated by an NGO in Guatemala, based upon the allegation that the State of Guatemala violated the Xinka Indigenous people’s right of consultation. After several decisions and appeals on the matter, a decision of the Constitutional Court of Guatemala was rendered on September 3, 2018, determining that the Escobal mining license would remain suspended until the State of Guatemala completes an ILO 169 consultation process led by the Guatemala MEM. The consultation process is proceeding, and normal operations at the Escobal mine remain suspended. Legal challenges to the consultation process have been filed with the Supreme Court of Justice of Guatemala (the “Supreme Court”) by parties opposed to the Escobal mine and have, to date, been rejected by the Court, but the ultimate outcome of the various challenges remains uncertain. The process, timing, and outcome of the ILO 169 consultation also remains uncertain. The pre-consultation process commenced in the first half of 2021 and continued at various points throughout the year. In addition, in June 2017, PASG (at the time, known as Minera San Rafael, S.A. (“MSR”)) filed its annual request to renew the Escobal mine’s export credential with the Guatemala MEM. However, the Guatemala MEM did not renew the export credential because its renewal had become contingent on the Supreme Court’s reinstatement of the Escobal mining license. The export credential therefore expired in August 2017 and has not been renewed.

In addition, since June 7, 2017, a group of protesters near the town of Casillas have blocked the primary highway that connects Guatemala City to San Rafael Las Flores and the Escobal mine. Mining operations were reduced between June 8 and June 19, 2017 to conserve fuel, and on July 5, 2017, were ceased following the Supreme Court’s provisional decision to suspend the Escobal mining license while the case against the Guatemala MEM was heard on the merits. A second roadblock was initiated in 2018 near the community of Mataquescuintla. The attendance at both roadblocks was reduced during 2020 and access to the mine was less restricted. While we continue our efforts to regain trust and repair relationships, there is no guarantee that a positive resolution will be reached or that the roadblocks will be removed.

We make annual payments to the Guatemala MEM for each concession. Annual reports documenting exploration and operation activities have been filed with the Guatemala MEM, as required.

While Escobal is on care and maintenance, we continue to comply with Escobal's environmental management plan which was updated in 2020. As part of these requirements, we are following through on appropriate commitments made by Tahoe, responding to community requests for information and support, and satisfying our reporting obligations to the Government of Guatemala.

In Guatemala, there is a statutory one percent royalty on precious and base metal production. In addition, MSR (now PASG) paid an additional 4% NSR royalty on concentrates sold from the Escobal mine, primarily to nearby municipalities. Payments under the voluntary royalty were suspended in 2017 upon the Escobal license suspension, but some payments of these outstanding royalties have been made more recently.

In addition, MSR (now PASG) established a profit-sharing program that provides a 0.5% NSR royalty to an association of former landowners of the Escobal mine property. Ten percent of this royalty is to be deposited in a special fund, administered by the association's board of directors, and used for improvements in local communities.

Within the Escobal mining licence, PASG owns approximately 300 hectares for the area required for mining operations, processing plant and ancillary facilities, surface operations, and tailings and waste rock disposal. Our ownership of certain of these lands has been challenged in the Guatemalan Courts. Please refer to the "Risks Related to Our Business" for further discussion of this and related risks.

### ***History***

Activity at the Escobal property dates back to 1996 when Entre Mares, S.A., the Guatemalan subsidiary of Goldcorp, identified high grade gold values associated with surface quartz veins in the western portion of the Escobal vein. In late 2006, significant silver and gold grades were detected from surface sampling along an extensive alteration zone developed over the Escobal vein. Exploration drilling began on the property in 2007 and resource estimates were prepared in 2010.

In June 2010, Tahoe acquired 100% of the Escobal mine project and associated exploration concessions from Entre Mares, and the Escobal mine was then held by a wholly-owned subsidiary of Tahoe, MSR (now PASG). Mine construction began in 2011, and commercial production began in 2013. The mine produced annually until its suspension in 2017. In February 2019, Pan American completed the Tahoe Acquisition.

### ***Geological Setting, Mineralization, and Deposit Types***

The Guatemalan geological setting is comprised of two tectonic terrains juxtaposed across a major tectonic plate boundary. The northern half of Guatemala is on the North American plate, and the southern half is on the Caribbean plate with three major east-west trending faults forming the collision boundary. The Escobal property is situated on the Caribbean plate, south of the faults. The area is characterized by a series of volcanic units derived from multiple eruptive events.

The Escobal deposit is an intermediate sulfidation, fault related vein formed within sedimentary and volcanic rocks. The Escobal vein system hosts silver, gold, lead and zinc, with an associated epithermal suite of elements, within quartz and quartz-carbonate veins. Quartz veins and stockwork up to 50 metres wide, with up to 10% sulfides, form at the centre of the Escobal deposit and grade outward through silicification, quartz-sericite, argillic and propylitic alteration zones.

Precious and base metal mineralization has been identified over a 2,400 metre lateral distance and 1,200 metre vertical range in three zones oriented generally east-west, with variable dips.

### ***Exploration***

Exploration at the Escobal mine included surface prospecting, mapping, soil and rock geochemical sampling, geophysical surveys, and drilling.

### ***Drilling***

All drilling undertaken between 2007 and 2017 was by diamond drilling from surface and underground using industry standard drill machines and downhole survey tools. Drilling was conducted by both mine employees and private drilling contractors under the supervision of the mine geology department.

### **Sampling, Analysis, and Data Verification**

The drill core was generally sampled at 1.0 metre to 1.5 metre lengths according to geological features and cut with a saw. The samples are maintained in secure facilities and were under the control of our employees or the independent laboratory at all times. We have no reason to believe that the validity and integrity of the samples has been compromised. The samples were prepared by Bureau Veritas at their sample preparation facility in Guatemala City and analyzed at their Reno, Nevada facility. In late 2015, a portion of the underground stope definition core was analyzed at the on site laboratory.

Gold was assayed by fire assay with AA finish and silver was assayed by digestion with AA finish. Higher grade samples were completed using fire assay and gravimetric finish. Lead and zinc were analyzed by induced coupled polarization or by digestion with AA finish with high grade samples completed using titration methods.

A QAQC program supervised by the geology department included the submission of certified standards, duplicates, and blanks to the laboratory. The results of the QAQC programs indicate that the sample assays are reliable for the estimation of mineral resources and mineral reserves.

### **Mineral Processing and Metallurgical Testing**

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

### **Mineral Resource and Mineral Reserve Estimates**

Management estimates that mineral reserves at the Escobal mine, effective June 30, 2023, are as follows:

<b>Escobal Mineral Reserves<sup>1, 2, 3</sup></b>					
<b>Reserve Category</b>	<b>Tonnes (Mt)</b>	<b>Grams of Silver per tonne</b>	<b>Grams of gold per tonne</b>	<b>% Lead</b>	<b>% Zinc</b>
Proven	2.5	486	0.42	1.02	1.75
Probable	22.1	316	0.34	0.77	1.25
<b>TOTAL</b>	<b>24.6</b>	<b>333</b>	<b>0.35</b>	<b>0.80</b>	<b>1.30</b>

Notes:

- 1 Estimated using a price of \$20 per ounce of silver, \$1,300 per ounce of gold, \$2,204 per tonne of lead and \$2,424 per tonne of zinc. Totals may not add due to rounding.
- 2 Mineral reserve estimates for the Escobal mine have not been updated by Pan American since the acquisition of Tahoe. They have been reviewed by Christopher Emerson, FAusIMM, and Martin Wafforn, P.Eng., who are each Qualified Persons as that term is defined in NI 43-101.
- 3 Mineral reserves are in addition to mineral resources.

Management estimates that mineral resources at the Escobal mine, effective June 30, 2023, are as follows:

<b>Escobal Mineral Resources<sup>1, 2</sup></b>					
<b>Resource Category</b>	<b>Tonnes (Mt)</b>	<b>Grams of Silver per tonne</b>	<b>Grams of gold per tonne</b>	<b>% Lead</b>	<b>% Zinc</b>
Measured	2.3	251	0.23	0.31	0.59
Indicated	14.2	201	0.20	0.38	0.66
Inferred	1.9	180	0.9	0.22	0.42

Notes:

- 1 Mineral resources exclude those mineral resources converted to mineral reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Estimated using a price of \$20 per ounce of silver, \$1,300 per ounce of gold, \$2,204 per tonne of lead and \$2,424 per tonne of zinc. Mineral resources are reported within scheduled mine shapes and above a mineral resource cut-off grade.
- 2 Mineral resource estimates for the Escobal mine have not been updated by Pan American since the acquisition of Tahoe. They have been reviewed by Christopher Emerson, FAusIMM, and Martin Wafforn, P. Eng., who are each Qualified Persons as that term is defined in NI 43-101

Mineral resource estimates were prepared using inverse distance interpolation methods within geological interpretations created in plan and section. The block model was classified into measured, indicated, and inferred confidence categories depending on the location of the block relative to the number of drillhole intersections available to estimate each block, as well as other factors affecting confidence in the estimate.

The mineral resource estimate was then depleted for previous mining and planned dilution and loss was applied. Reserve and resource stope shapes were prepared on blocks above the economic cut-off. Mineral resources that can be economically mined are converted to mineral reserves.

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

### ***Mining Operations***

Underground mining at Escobal utilized longhole stoping methods, with ore brought to the surface by ramp.

No mining operations have been conducted at Escobal since the Escobal mining license suspension in 2017, and Escobal remains on care and maintenance. We are required to conduct certain activities in order to be in compliance with our environmental management plan, which includes limited community relations activities to respect any existing commitments and to respond to requests for information regarding our activities. The Guatemala MEM and the Ministry of Environment have conducted a number of site inspections to verify the condition of the mine and facility, our activities, and compliance with the Court Order.

### ***Processing and Recovery Operations***

Prior to the suspension of mining operations, ore from the Escobal mine was processed in 4,500 tpd capacity plant using conventional lead-zinc differential flotation to produce silver and gold rich lead and zinc concentrates. No processing has taken place since the Escobal mining license suspension in 2017.

In 2016, the last full-year period in which there was production from the mine, the Escobal mine produced 22.5 thousand tonnes of lead concentrate and 27.6 thousand tonnes of zinc concentrate, with total contained metal of 21.2 million ounces of silver, 10.7 thousand ounces of gold, 10.3 thousand tonnes of lead, and 17.4 thousand tonnes of zinc. Metallurgical recoveries for the lead concentrate were 80.6% silver, 54% gold, 87.2% lead, and 12.6% zinc, while recoveries for the zinc concentrate were 6.1% silver, 6.2% gold, 3.0% lead, and 78.6% zinc.

### ***Infrastructure, Permitting, and Compliance Activities***

The Escobal mine workings, processing plant, tailings and waste disposal areas, effluent management and treatment systems, ancillary facilities, roads and power lines have all been constructed and are located within the boundaries of the exploitation license and surface lands owned by us. When the mine was in operation, power was provided mainly by on-site diesel generation. Water is supplied from mine dewatering and water wells.

The Escobal mine operations were conducted under an EIS approved by the Ministry of Environment and Natural Resources and an exploitation license issued by the Guatemala MEM. The export of concentrates is licensed through the Guatemala MEM, with annual renewal requirements. Land use changes, vegetation clearing, and reforestation are permitted through Guatemala's National Institute of Forests. Archeological clearances were issued by the Ministry of Culture and Sports. Other than an export credential which has not been renewed by the Guatemala MEM following its expiration in August 2017 and the suspension of the Escobal mine mining license, to the best of our knowledge, all other permits and licenses required to conduct its activities at the Escobal Mine have been obtained and are currently in good standing. See "Risks Related to Our Business".

PASG has implemented a comprehensive environmental management plan developed specifically for the conditions at the Escobal mine, which addresses operating, reporting, and mitigation procedures for surface and underground operations. An update to the environmental management plan was approved in 2020 and a new update was filed in 2023.

A closure cost estimate for the Escobal mine prepared according to State of Nevada approved SRCE methodology is updated every year for unit costs and discount rates, and every other year for physical disturbance if necessary. We have estimated the present value of reclamation costs for the Escobal mine to be approximately \$6.6 million effective December 31, 2023. See "Narrative Description of the Business – Environment, Community and Sustainability" for further disclosure regarding forward-looking statements related to reclamation costs.

### **Capital and Operating Costs**

During 2023, Escobal was in care and maintenance and incurred \$26.0 million in holding costs. Capital additions at Escobal during 2023 totalled \$2.1 million.

In 2024, we anticipate to spending \$20.0 million to \$25.0 million in care and maintenance costs for the Escobal mine.

### **Exploration, Development, and Production**

In 2023, we do not anticipate any production from the Escobal mine as the operations remain suspended. We plan to continue with our property and infrastructure maintenance requirements and have no plans to undertake any exploration work in 2023. All expenditures will be expensed as incurred.

### **III. Non-Material Properties and Interests**

We own interests in other mineral properties in each of the jurisdictions in which we operate, including the La Arena mine in Peru, the Minera Florida mine in Chile, the Dolores mine in Mexico, the San Vicente mine in Bolivia, the Bell Creek and Timmins West mines in Canada, and the Cerro Moro mine and the Navidad property in Argentina, and certain other exploration and development properties in various jurisdictions, including Peru, Mexico, the United States, and Canada. The Manantial Espejo, Joaquin and COSE mines in Argentina are in the reclamation phase and mining activity has ceased. Our Alamo Dorado mine in Mexico is in the reclamation phase and mining activity has ceased. Pan American does not consider these properties to be material properties for the purposes of NI 51-102 or NI 43-101.

### **Mineral Property Expenditures**

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

		<b>2023</b>	<b>2022</b>	<b>2021</b>
Development <sup>1</sup>	Huaron	\$ 32,428	\$ 12,679	\$ 8,749
	Dolores	7,401	33,872	38,928
	La Colorada	63,806	91,575	65,469
	San Vicente	3,787	7,156	5,340
	Shahuindo	51,076	41,441	24,652
	La Arena	19,428	46,369	45,130
	Timmins	46,771	36,905	41,520
	Escobal	2,119	1,606	778
	Jacobina <sup>3</sup>	59,197	—	—
	El Peñon <sup>3</sup>	10,608	—	—
	Minera Florida <sup>3</sup>	16,719	—	—
	Cerro Moro <sup>3</sup>	22,093	—	—
	Morococha	—	327	6,163
	Manantial Espejo	—	2,026	5,010
	Navidad	—	—	90
	Other <sup>4</sup>	43,614	733	1,649
	<b>TOTAL<sup>2</sup></b>	<b>\$ 379,048</b>	<b>\$ 274,688</b>	<b>\$ 243,478</b>
Exploration <sup>4</sup>	Huaron	\$ 11	\$ 438	\$ —
	Dolores	5	49	225
	La Colorada	1,112	9,929	2,643
	San Vicente	—	—	—
	Shahuindo	—	540	828
	La Arena	—	—	—
	Timmins	1,482	4,015	3,628
	Jacobina <sup>3</sup>	7	—	—
	El Peñon <sup>3</sup>	1,299	—	—

	2023	2022	2021
Minera Florida <sup>3</sup>	626	—	—
Cerro Moro <sup>3</sup>	2,878	—	—
Morococha	—	154	686
Manantial Espejo	—	146	—
Navidad	—	—	—
Other <sup>5</sup>	7,186	3,066	3,060
<b>TOTAL<sup>2</sup></b>	<b>\$ 14,606</b>	<b>\$ 18,336</b>	<b>\$ 11,071</b>

**Notes:**

- 1 As displayed in the Company's Consolidated Statements of Cash Flow under the concept of Payments for Property, Plant and Equipment. The amounts are inclusive of capitalized exploration expenditures and is net of lease advances.
- 2 Numbers may not add due to rounding.
- 3 Includes expenditures for the period March 31<sup>st</sup>, 2023, to December 31<sup>st</sup>, 2023.
- 4 As displayed in the Company's Consolidated Statements of Earnings and Comprehensive Earnings under the concept of Exploration and Project Development. The amounts represent expenditures in early-stage properties or targets and are inclusive of regional exploration overheads.
- 5 Includes spending on overhead corporate management charges and other indirect exploration spending, as well as expenditures related to the Mara project which was divested in September 2023.

## Metals Trading

We take the view that our precious metals production should not be hedged, thereby allowing the maximum exposure to precious metal prices.

We have engaged in forward sales and hedging of base metals production from our mines over the past several years. The forward sales of base metals in 2021, 2022 and 2023 were as follows:

- During 2023, we did not hedge any base metal production.
- During 2022, we had 3,900 tonnes of zinc exercised at an average strike price of \$3,173 per tonne, resulting in a realized gain of \$2.0 million, and 600 tonnes of zinc exercised at an average strike price of \$4,033 per tonne, resulting in a realized loss of \$0.2 million.
- During 2021, we had 1,500 tonnes of copper exercised at an average strike price of \$8,775 per tonne, resulting in a realized loss of \$1.1 million.
- Please see the discussion below under "Risks Related to Our Business – Trading Activities and Credit Risk".



## RISKS RELATED TO OUR BUSINESS

---

*The risk factors described below could materially affect Pan American's future operating results and could cause actual events and results to differ materially from those described in forward-looking statements and forward-looking information. Additional risks not presently known to us, or that we currently consider immaterial, may also impair our operations. Readers are strongly encouraged to review the following identified risks in detail.*

### **Metal and Commodity Price Fluctuations**

The majority of our revenue is derived from the sale of silver, gold, zinc, copper and lead, and therefore fluctuations in the prices of these metals significantly affects our operations and profitability. Our sales are directly dependent on metal prices, and metal prices have historically shown significant volatility and are beyond our control. The Board of Directors continually assesses Pan American's strategy towards our metal exposure, depending on market conditions.

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

- global and regional levels of supply and demand;
- sales by government holders and other third parties;
- metal stock levels maintained by producers and others;
- increased production due to new mine developments and improved mining and production methods;
- speculative activities;
- inventory carrying costs;
- availability, demand and costs of metal substitutes;
- international economic and political conditions;
- interest rates, inflation and currency values;
- increased demand for silver, gold, or other metals for new technologies; and
- reduced demand resulting from obsolescence of technologies and processes utilizing silver, gold, and other metals.

In addition to general global economic conditions that can have a severely damaging effect on our business in many ways, declining market prices for metals could materially adversely affect our operations and profitability. A decrease in the market price of silver, gold and other metals could affect the commercial viability of our mines and production at our mining properties. Lower prices could also adversely affect future exploration and our ability to develop mineral properties and mines, including the development of capital-intensive projects such as the La Colorada skarn project, all of which would have a material adverse impact on our financial condition, results of operations and future prospects. There can be no assurance that the market prices for silver, gold, and other metals will remain at levels sufficient to sustain long-term profitability.

If market prices of silver, gold and other metals remain below levels used in Pan American's impairment testing and reserve prices for an extended period of time, Pan American may need to reassess its long-term price assumptions, and a significant decrease in the long-term price assumptions would be an indicator of potential impairment, requiring Pan American to perform an impairment assessment on related assets. Due to the sensitivity of the recoverable amounts to long-term silver, gold, and other metal prices, as well as to other factors including changes to mine plans and cost escalations, any significant change in these key assumptions and inputs could result in impairment charges in future periods.

The Board of Directors continually assesses Pan American's strategy towards our metal exposure, depending on market conditions. From time to time, we mitigate the market price risk associated with our base metal production by committing some of our forecast base metal production to forward sales and options contracts. However, decisions relating to hedging may have material adverse effects on our financial performance, financial position, and results of operations. During the year ended December 31, 2023, the Company had no outstanding contracts to sell base metal production.

We take the view that our precious metals production should not be hedged, thereby allowing the maximum exposure to precious metal prices. However, in extreme circumstances, the Board of Directors may make exceptions to this approach. Such decisions could have material adverse effects upon our financial performance, financial position, and results of operations.

Certain commodities, such as diesel, used by us in our operations may also be subject to strategic hedging programs. At December 31, 2023, the Company had no outstanding positions on its diesel exposure.

Please refer to the "Risks and Uncertainties" section of the 2023 MD&A for more details, including a sensitivity analysis of the effect of silver, gold and other relevant metal prices on revenue and AISC.

## Foreign Operations

In 2023, a significant portion of our production and revenues were derived from our operations in Peru, Mexico, Argentina, Chile, Brazil, and Bolivia. We also own the currently suspended Escobal mine in Guatemala. As a result, we are exposed to a number of risks and uncertainties, including:

- expropriation, nationalization, and the cancellation, revocation, renegotiation, or forced modification of existing contracts, permits, licenses, approvals, or title, particularly without adequate compensation;
- changing political and fiscal regimes, sometimes unexpectedly or as a result of precipitous events, and economic and regulatory instability;
- unanticipated adverse changes to constitutional rights and protections, and other laws and policies, including those relating to mineral title, royalties and taxation;
- delays or inability to obtain or maintain necessary permits, licenses or approvals;
- opposition to mine development projects from governments, Indigenous peoples, communities, and other groups, which may include frivolous or vexatious claims, misinformation, and the potential for violence and property damage;
- restrictions on foreign investment;
- limitations on repatriation of operating cash flows, including currency controls and other legal and practical restrictions to transfer funds from foreign jurisdictions;
- extreme fluctuations in currency exchange rates and restrictions on foreign exchange;
- unreliable or undeveloped infrastructure;
- labour unrest and scarcity;
- human rights violations, which may include Indigenous rights claims;
- inability of governments or governmental bodies to complete, or properly complete, consultation processes and to comply with national and international laws, protocols, standards and/or norms;
- difficulty obtaining key equipment and components for equipment;
- regulations and restrictions with respect to imports and exports;
- high rates of inflation;
- inability to obtain fair dispute resolution or judicial determinations because of bias, corruption or abuse of power;
- abuse of power of foreign governments who impose, or threaten to impose, fines, penalties or other similar mechanisms, without regard to the rule of law;
- difficulties enforcing judgments, particularly judgments obtained in Canada or the United States, with respect to assets located outside of those jurisdictions;
- difficulty understanding and complying with the regulatory and legal framework with respect to mineral properties, mines and mining operations, and permitting;
- violence and criminal activity, including organized crime, theft, trespassing, and illegal mining;
- civil unrest, terrorism and hostage taking;
- government, union and community pressures to maintain unprofitable operations;
- military repression and increased likelihood of international conflicts or aggression; and
- increased public health concerns, including the impact of COVID-19 or other pandemics.

Certain of these risks and uncertainties are illustrated well by circumstances in Guatemala, Bolivia, Peru and Mexico.

Some communities and NGOs have been vocal and active in their opposition to mining and exploration activities in Guatemala. In July 2017, the Escobal mining license was suspended as a result of a court proceeding initiated by an NGO in Guatemala, based upon the allegation that the State of Guatemala had violated the Xinka Indigenous people's right of consultation. After several decisions and appeals on the matter, a decision of the Constitutional Court of Guatemala was rendered on September 3, 2018 (the "Court Order"), determining that the Escobal mining license would remain suspended until the State of Guatemala completes an ILO 169 consultation process led by the Guatemala MEM. The consultation process is proceeding, and normal operations at the Escobal mine remain suspended. Legal challenges to the consultation process have been filed with the Guatemalan Supreme Court by parties opposed to the Escobal mine and have, to date, been rejected by the Court, but the ultimate outcome of the various challenges remains uncertain. The pre-consultation was completed in 2022 and the substantive consultation process commenced, however the process, timing, and outcome of the ILO 169 consultation remains uncertain. In addition, in June 2017, PASG (at the time, known as MSR) filed its annual request to renew the Escobal mine's export credential with the Guatemala MEM. However, the Guatemala MEM did not renew the export credential because its renewal had become contingent on the Supreme Court's reinstatement of the Escobal mining license. The export credential therefore expired in August 2017 and has not been renewed. A new government took office in Guatemala in January 2024 and we had our first meeting with the

new Guatemala MEM in February, 2024. A meeting for the ILO 169 consultation was also held in February, 2024, with the newly appointed Vice Minister of Energy and Mines and Xinka representatives, during which a presentation on the observations of the Xinka's appointed consultants was communicated. It is anticipated that the change of government may result in further delays to the completion of the ILO 169 consultation as the new government familiarizes itself with the process and develops its position on the process completed to date, future meeting requirements and the possibility of further Xinka community consultations, information requirements and potential agreements.

In 2014, the Bolivian government enacted a new mining law (the "New Mining Law") relating to state participation in mining projects. The New Mining Law provided that all pre-existing contracts were to migrate to one of several new forms of agreement. The migration process has been delayed for a number of years, but our current joint venture agreement with Corporación Minera de Bolivia ("COMIBOL") relating to the San Vicente mine might eventually be subject to such migration and possible renegotiation. The primary effects on the San Vicente operation and our interest therein will not be known until such time, and the full impact may only be realized over time. If necessary, we will take appropriate steps to protect and 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.

Criminal activity and violence are also prevalent in some areas that we work in. For example, violence in Mexico is well documented and has, over time, been increasing. Conflicts between organized crime and violent confrontations with authorities are not uncommon and have been increasing in some jurisdictions. Operations at our La Colorada mine were temporarily suspended in October 2023, due to security concerns at the mine site and the surrounding area following an armed robbery of metal concentrates from the mine, and activities at the Dolores mine were similarly suspended for a short period in 2018 and continue to be of concern. Other criminal activity, such as kidnapping and extortion, is also an ongoing concern. Many incidents of crime and violence go unreported and efforts by police and other authorities to reduce criminal activity are challenged by a lack of resources, corruption and the pervasiveness of organized crime. While no injuries to our personnel occurred in the most recent security event at La Colorada, incidents of criminal activity have occasionally affected our employees and our contractors and their families, as well as the communities in the vicinity of our operations. Such incidents may prevent access to our mines or offices; halt or delay our operations and production; result in harm to employees, contractors, visitors or community members; increase employee absenteeism; create or increase tension in nearby communities; or otherwise adversely affect our ability to conduct business. We can provide no assurance that security incidents, in the future, will not have a material adverse effect on our operations.

Challenges also exist with respect to inconsistent application of the rule of law, and to sometimes unreliable and biased legal systems and judiciary. In April 2012, Pan American sold all of its interest in the Quiruvilca mine ("Quiruvilca") in Peru, which was previously owned by our subsidiary, Huaron. Since the 2012 sale, a substantial number of labour-related claims have been made by persons alleging to be former or then-current employees working at the Quiruvilca mine. Notwithstanding that a majority of these claims were made exclusively against the subsequent owners of Quiruvilca, that Huaron has not owned or been involved with Quiruvilca since 2012, and that Huaron was often not afforded the opportunity to participate or challenge the assertions, the labour courts in Trujillo, Peru, have in many cases, imputed liability on Huaron. In some cases, the courts ordered seizure of monies from Huaron's local bank accounts and garnishment of funds due to Huaron from certain of its trading partners. In August 2018, the current owner of Quiruvilca declared bankruptcy, further exacerbating the situation. Huaron has challenged the basis of the labour court's decisions in Trujillo when it has the opportunity to do so, and in the Commercial Court and Constitutional Courts of Peru. While Pan American believes it has a strong legal position against liability for these claims and intends to continue to challenge them, the circumstances are such that success in challenging these claims has been limited and the aggregate amount of the claims and losses experienced by the Company has become more significant over time. There can be no assurance that the outcome of the proceedings or any enforcement of our rights will be favorable to us or that it will not have a material adverse impact on our financial position. Huaron will likely be subject to further labour-related claims, and could also be subject to, directly or indirectly, claims by creditors of the current owner of Quiruvilca and claims relating to the now abandoned mine site, which in aggregate could be material.

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. We evaluate our operations against the World Gold Council Conflict-Free Standard in an effort to gain more insights into potential risks related to security and corruption at our operations, but the success of this initiative remains uncertain. 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.

## Governmental Regulation

Our operations, exploration, and development activities are subject to extensive laws and regulations in the jurisdictions in which we conduct our business, including with respect to:

- environmental protection, including greenhouse gas emissions, biodiversity, and water, soil and air quality;
- permitting;
- management and use of toxic substances and explosives;
- management and use of natural resources, including water and energy supplies;
- management of waste and wastewater;
- exploration, development, production, and post-closure reclamation of mines;
- imports and exports;
- transportation;
- currency and price controls;
- taxation;
- mining royalties;
- labour standards, employee profit-sharing, and occupational health and safety regulations;
- community and Indigenous rights;
- human rights;
- social matters, including historic and cultural preservation, engagement and consultation, local hiring and procurement, development funds;
- anti-corruption and anti-money laundering; and
- data protection and privacy.

The costs associated with compliance with these and future laws and regulations can be substantial, and changes to existing laws and regulations (including the imposition of higher taxes and mining royalties) could cause additional expense, capital expenditures, restrictions on or suspensions of our operations and delays in the development of our properties. In addition, the regulatory and legal framework in some jurisdictions in which we operate are out-dated, unclear and at times, inconsistent. A failure to comply with these laws and regulations, including with respect to our past and current operations, and possibly even actions of parties from whom we acquired our mines or properties, could lead to, among other things, the imposition of substantial fines, penalties, sanctions, the revocation of licenses or approvals, expropriation, forced reduction or suspension of operations, and other civil, regulatory or criminal proceedings.

Many of the jurisdictions in which we operate also have certain laws or policies that impose restrictions on mining activities. For example, there are currently laws in the Province of Chubut, Argentina, which, among other things, prohibit open pit mining and the use of cyanide in mineral processing across the entire Province. As currently enacted, the laws in the Province of Chubut do not permit and would likely render any future construction and development of the Navidad property uneconomic or not possible at all. There is no guarantee that these restrictions on mining will be removed or that they will not become more restrictive, or that new constraints will not be imposed, including those that might have significant economic impacts on our operations and profitability.

Unanticipated or drastic changes in laws and regulations have affected our operations in the past. For example, under previous political regimes in Argentina, the government intensified the use of severe price, foreign exchange, and import controls in response to unfavourable domestic economic trends. These included informal restrictions on dividend, interest, and service payments abroad and limitations on the ability to convert ARS into USD, exposing us to additional risks of ARS devaluation and high domestic inflation. While these restrictions sometimes ease with new governments, unfavourable policies continue to be used to varying degrees. For example, the government of Argentina introduced a new export duty in 2018 on silver and gold doré exported from Argentina which impacted our operations in the country. In 2023, we paid approximately \$0.9 million (2022: \$4.9 million) and \$5.1 million (2022: prior to ownership) in export duties for Manantial Espejo and Cerro Moro respectively.

As a further example, on May 8, 2023, the Mexican government enacted a decree to reform various provisions of the mining law (the "Decree"), which was published in the Official Gazette and became law on May 9, 2023. The Decree makes significant changes to the current mining laws, including but not limited to: reducing mining license concession terms; restricting the granting of mining concessions requiring public auctions; imposing conditions on water use and availability; imposing regulations on mining concession transfers; imposing additional grounds for cancellation of mining concessions and further limitations on mining in protected areas; granting preferential rights to mining strategic minerals to state owned enterprises; imposing additional requirements for financial instruments to be provided to guarantee preventive, mitigation, and compensation measures resulting from the social impact assessment, as well as potential damages that may occur during mining activities; and potentially requiring Indigenous Peoples' (ILO 169) consultation. These changes to the mining law are expected to have impacts on our current and future exploration activities and operations in Mexico, the extent of which is yet to be determined but which could be material. Additional constitutional reforms were presented by the President

of Mexico in February, 2024. Some of these reforms have the potential to impact mining in Mexico, including further restrictions on water use, the granting of future concessions for open pit mining, and increased public consultation requirements. These latest reforms are not law and still need to pass through a legislative process for amendment of the Constitution of Mexico, and will likely face legal challenges if they do. It is notable that the previous May 2023 mining law reforms introduced by the President have still not been implemented and have been challenged by many mining companies, as well as Congress, on constitutional grounds. At the same time, the Presidential term is nearing its completion in September 2024. The positions of the leading candidates for President and Congress are unknown at this time. As such, it is too early to speculate on whether any of the current President's proposed reforms will actually become part of the Constitution of Mexico.

As governments continue to struggle with deficits and concerns over the effects of depressed economies, the mining and metals sector has often been identified as a source of revenue. Taxation and royalties are often subject to change and are vulnerable to increases in both poor and good economic times, especially in many resource-rich countries. Audits and inquiries have become more frequent and extensive, consuming significant management time and attention. The addition of new taxes, the re-interpretation of existing tax laws and regulations, and increasingly aggressive and sometimes groundless positions taken by tax authorities, specifically those aimed at mining companies, could have a significant impact on our operations and may have material direct effects on our profitability and our financial results. In some cases, if tax claims are resolved against that Company, these could also include significant interest and penalties. Such tax matters are increasingly being seen in the jurisdictions in which we operate. COVID-19 resulted in unprecedented public health measures and massive increases in government spending which caused significant long-term damage to the global and most national economies. The resulting costs to governments, increased fiscal debt, interest rates, and inflation continue to result in further taxation pressures, the impacts of which could impact our financial performance.

In late December 2016, for example, the Zacatecas state government enacted a new set of ecological taxes which took effect on January 1, 2017. The Zacatecas Tax applied broadly across a number of industries in the State of Zacatecas that involve extraction, emissions to the air, soil or water, and deposits of residue or waste. The Zacatecas Tax primarily affected the La Colorada mine in respect of the materials placed in its tailings storage facility, with only about 5% of the tax relating to air emissions. We paid approximately \$4.5 million in respect of the Zacatecas Tax from January 2017 to April 2020. However, pursuant to a challenge of the Zacatecas Tax constitutional grounds, in mid-2020, the Supreme Court of Mexico determined that the tax for the deposit or storage of waste rock was not within the jurisdiction of the State of Zacatecas and that Plata Panamericana was entitled to be reimbursed for payments previously made in respect of the La Colorada mine. As part of this ruling, the Court also ruled that the State of Zacatecas was still empowered to impose a tax for the prevention and control of air pollution generated by industrial establishments, which are not within the federal competence, and therefore that portion of the tax on Plata was upheld and currently being paid by Plata Panamericana. Furthermore, in December 2020, the State of Zacatecas modified the original tax on the disposal or storage of waste rock. Plata Panamericana does not currently believe that this tax is payable in respect of La Colorada because of its SEMARNAT-approved waste management plan.

In April 2021, the Senate of Mexico approved the amendment of various articles of the Federal Labor Law, Social Security Law, Law of the National Workers' Housing Fund Institute, Federal Fiscal Code, Income Tax Law and the Value Added Tax Law. These new regulations significantly limit the ability of operating companies to subcontract and outsource labour to contractors and to employ related service providers. As a consequence of this new legislation, additional employee profit sharing costs, payroll taxes and benefits costs were imposed on our operations.

Similarly, in August 2022, the government of Peru instituted regulations that severely restricted the use of contractors to perform core mining activities on behalf of mining companies, requiring instead that contractors be transitioned to, or become, employees of such companies. The application of these regulations has, however, been suspended by the Peruvian competition authority because of challenges to their legality. It is unknown whether these legal challenges will be successful or whether the application of these regulations will be reinstated, and if the regulations do become enforceable, there could be significant negative consequences to our Peruvian operations and financial results.

## **Permits**

We are required to obtain and renew governmental permits for the operation and expansion of existing operations or for the development, construction, and commencement of new operations. Obtaining or renewing the necessary governmental permits can be costly and involve extended timelines. We may not be able to obtain or renew permits that are necessary to our operations, or the cost to obtain or renew permits may exceed our expected recovery from a given property once in production.

Failure to obtain or maintain the necessary permits, or to maintain compliance with any permits, can result in fines, penalties, or suspension or revocation of the permits. Our ability to obtain and renew permits is contingent upon certain variables, some of which are not within our control, including, introduction of new permitting legislation, the interpretation of applicable requirements implemented by the permitting authority, the need for public consultation hearings or approvals, and political or social pressure.

As previously discussed, in July 2017, the Escobal mining license was suspended as a result of a court proceeding initiated by an NGO in Guatemala. After several decisions and appeals on the matter, a decision of the Constitutional Court of Guatemala was rendered on September 3, 2018, that the Escobal mining license would remain suspended until the Guatemala MEM completes an ILO 169 consultation. The consultation process is proceeding and the mine remains suspended and on care and maintenance.

In addition, in June 2017, PASG (at the time known as MSR) filed its annual request to renew the export credential with the Guatemala MEM. However, the Guatemala MEM did not renew the credential because its renewal had become contingent on the Supreme Court's reinstatement of the Escobal mining license. The credential therefore expired in August 2017 and has not been renewed.

Any unexpected delays, failure to obtain or renew permits, failure to comply with the terms of the permit, or costs associated with the permitting process could impede or prevent the development or operation of a mine, which could have material adverse impacts on our operations and profitability.

## **Operational Risks**

The ownership, operation, and development of a mine or mineral property involves significant risks and hazards which even the combination of experience, knowledge, and careful evaluation may not be able to overcome.

These risks include:

- environmental and health hazards;
- industrial and equipment accidents, explosions and third party accidents;
- the encountering of unusual or unexpected geological formations;
- ground falls and cave-ins;
- flooding;
- labour disruptions;
- the integrity and stability of tailings storage facilities and leach pads;
- mechanical equipment, machinery, and facility performance problems;
- seismic events;
- extreme temperature variations and air quality issues underground; and
- periodic interruptions due to inclement or hazardous weather conditions.

These risks could result in:

- damage to, or destruction of, mineral properties or production facilities;
- personal injury or death;
- environmental damage and liabilities;
- delayed production;
- labour disruptions;
- increased production costs;
- asset write downs;
- abandonment of assets;
- monetary losses;
- civil, regulatory or criminal proceedings, including fines and penalties, relating to health, safety and the environment;
- community unrest, protests, and legal proceedings at local or international levels;
- loss of social acceptance for our activities; and
- other liabilities.

Advancements in science and technology and in mine design, methods, equipment, and training have created the possibility of reducing some of these risks, but there can be no assurances that such occurrences will not take place and that they will not negatively impact us, our operations, and our personnel. For example, our La Colorada mine experienced ventilation failures in 2019 and 2020 that were partly the result of encountering increased heat and humidity loadings on the rock mass and ground support systems as the mine deepening and eastern extensions advanced. These failures resulted in a loss of forecast production in 2020 and 2021, and ventilation continued to be a concern through 2023 that impacted operations. Remediation work was undertaken to improve ventilation and underground conditions, including the commissioning of the refrigeration plant in mid-2022 and the concrete-lined ventilation shaft and fan project, which is anticipated to be completed in Q1-2024.

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

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

## **Title to Assets**

The validity of mining or exploration titles or claims or rights, which constitute most of our property holdings, can be uncertain and may be contested. Our properties may be subject to prior unregistered liens, agreements or transfers, Indigenous land claims, or undetected title defects. In some cases, we do not own or hold rights to the mineral concessions we mine, including in Bolivia where the government has title to the concessions and our right to mine is contractual in nature. We have not conducted surveys of all the claims in which we hold direct or indirect interests and therefore, the precise area and location of such claims may be in doubt. No assurance can be given that applicable governments will not revoke or significantly alter the conditions of the applicable exploration and mining titles or claims, or that such exploration and mining titles or claims will not be challenged or impugned by third parties. We may be unable to operate our properties as expected, or to enforce our rights to our properties. Any defects in title to our properties, or the revocation of our rights to mine, could have a material adverse effect on our operations and financial condition.

For example, certain individuals have asserted community rights and land ownership over a portion of the La Colorada mine's surface lands in the Agrarian Courts of Mexico. We successfully defended this proceeding, which has been rejected and dismissed by the Agrarian Courts, but still remains subject to certain procedural appeals. These individuals have also initiated a process before SEDATU in Zacatecas to declare such lands as national property. In 2019, we filed an amparo against such process and obtained an injunction to protect its ownership of these surface rights pending the outcome of the amparo and a further review by SEDATU. Our challenge was dismissed in October 2021, primarily on the basis that no final declaration of national lands had yet been made by SEDATU that would affect our property rights. We appealed this dismissal, which was also rejected. The matter is now before the national office of SEDATU for further consideration and we will continue to oppose the SEDATU process and the application for a declaration of national lands. While we believe that we hold proper title to the surface lands in question, if we are unable to maintain, or maintain access to, those surface rights, there could be material adverse impacts on the La Colorada mine's future mining operations.

Similarly, in Guatemala, the land title system is not well developed and in many cases, relies on informal, hereditary or possessory rights. Such informal systems can create significant uncertainty in obtaining and maintaining ownership or rights of access, in defining precise locations or clear boundaries to properties, and substantiating rights if challenged. It is also difficult to establish the identity of parties who may have, or purport to have, an interest in such property. Many of the surface areas on which the Escobal mine is located are based on such informal rights. PASG is subject to a legal action by an individual claiming to own title to certain lands within the Escobal mine site that PASG had previously purchased. If we are unable to maintain existing lands and access, or to obtain new lands as required, there may be significant adverse impacts to the mine and its future operations.

We operate in countries with developing mining laws, and changes in such laws could materially impact our rights or interests to our properties. We are also subject to expropriation risk in a number of countries in which we operate, including the risk of expropriation or extinguishment of property rights based on a perceived lack of development or advancement. In Peru, for example, the elected government has raised the prospect of implementing changes to the Peru Constitution, imposing increased mining taxes and royalties, in addition to changes to mine closure requirements, and has also advanced the process of formalization of small-scale miners and artisanal miners, all which could materially impact our rights or interest to our properties. There is limited activity at our Navidad property, for example, as a result of legal restrictions relating to mining, and there is a risk that the federal or provincial governments in Argentina are dissatisfied with a lack of advancement. Expropriation, extinguishment of rights and other similar governmental actions would likely have a material adverse effect on our operations and profitability.

In many jurisdictions in which we operate, legal rights applicable to mining concessions are different and separate from legal rights applicable to surface lands. Accordingly, title holders of mining concessions in many jurisdictions must agree with surface landowners on compensation in respect of mining activities conducted on such land. We do not hold title to all of the surface lands at many of our operations and rely on contracts or other similar rights to conduct surface activities.

## Environmental Legislation, Regulations, and Hazards

We are subject to environmental laws and regulation in the various jurisdictions in which we operate that impose requirements or restrictions on our activities, such as mine development, water management, use of hazardous substances, reclamation, and waste transportation, storage and disposal. Compliance with environmental laws and regulations may require significant costs and may cause material changes or delays in our operations. There is no assurance that we will be in full compliance with environmental legislation at all times. Failure to comply with applicable environmental legislation could lead to adverse consequences, including expropriation, suspension or forced cessation of operations, revocation of or restrictions on permits, fines and other penalties, civil or regulatory proceedings, and, in certain circumstances, criminal proceedings. Furthermore, any such failures could increase costs and extend timelines, requiring additional capital expenditures and remedial actions. These negative consequences could significantly impact our financial condition, operations, and cash flow.

Future environmental legislation could also require stricter standards and mandate increased enforcement, fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their officers, directors and employees.

Environmental hazards may exist on our properties which are currently unknown to us. We may be liable for losses associated with such hazards or may be forced to undertake extensive remedial cleanup action or to pay for governmental remedial cleanup actions, even in cases where such hazards have been caused by previous or existing owners or operators of the property, or by the past or present owners of adjacent properties, or by natural conditions. The costs of such cleanup actions may have a material adverse effect on our operations and profitability.

We are subject to environmental reclamation requirements to minimize long-term effects of mining exploitation and exploration disturbance by requiring the operating company to control possible deleterious elements and to re-establish, to some degree, pre-disturbance landforms and vegetation. These environmental reclamation requirements vary depending on the location of the property and the managing governmental agency. We are actively providing for and carrying out reclamation activities on our properties as required. Between 2017 and 2023, we advanced the closure and reclamation of the Alamo Dorado mine and have applied some of that experience to closure cost estimates for our other mines. We continue to implement improvements at Alamo Dorado and apply lessons learned to our other operations. Any significant environmental or social issues that may arise, however, or any changes to current mine closure regulations could lead to increased reclamation expenditures and have a material adverse effect on our financial resources.

Our operations at the Dolores, Shahuindo and La Arena mines involve heap leaching and this method of mineral processing may be employed in the future at other mines and projects. Heap leaching often employs sodium cyanide, a hazardous material, to leach metal-bearing ore and then collect the resulting metal-bearing solution. There is an inherent risk of unintended discharge of hazardous materials in the operation of leach pads. Should sodium cyanide escape from a leach pad and collection infrastructure or otherwise be detected in the downstream surface and ground water points, we could become subject to liability for remediation costs, which could be significant and may not be insured against. In addition, metal production could be delayed or halted to prevent further discharges and to allow for remediation. Such delays or cessations in production could be long-term or, in some cases, permanent, and any interference with production could result in a significant reduction in, or loss of, cash flow and value for us. While appropriate steps may be taken to prevent discharges of sodium cyanide and other hazardous materials into the ground water, surface water, and the downstream environment, there is inherent risk in the operation of leach pads and there can be no assurance that a release of hazardous materials would not occur.

We operate nine tailings storage facilities including a dry filtered tailings stack operating in El Peñon mine; have five closed tailings facilities including two closed-filtered tailings facilities – one at the Alamo Dorado mine and the second one at the Minera Florida mine. In addition, we have one filtered tailings stack facility under care and maintenance at the Escobal mine, and operating water dams at the Dolores mine and Jacobina mine. Between 2014 and 2021 we completed dam safety inspections by the Engineers of Record for all our operating tailings facilities and several of our non-operating facilities also. The reviews found that the storage facilities design, construction, operation, maintenance, and monitoring at the tailings and water storage facilities are generally in line with the Canadian Dam Safety Guidelines, MAC Tailings Management Framework and TSM Tailings Protocol. We continue to implement the TSM Tailings Protocol to fully align with MAC's Tailings Management Framework and Canadian Dam Safety Guidelines at all of our sites. The development and update of guidelines and standards, such as the CDA Technical Bulletin on Tailings Dam Breach Analyses and other updated guidelines are progressively changing requirements, affecting design criteria, costs and ultimate capacity of our tailings facilities. Supported by our corporate tailings team based in Canada, our mines are continuously working to find safe and efficient solutions to progressively adapt to these changes in standards and regulations as well. Our design and operational practices are aimed at continuous improvement. Design of all of our tailings and water storage facilities includes detailed consideration of stability under static and dynamic seismic conditions, meeting or exceeding regulatory criteria of relevant safety factors. The design criteria for our operations are being progressively updated for all of our operating tailings storage facilities considering the most recent results of dam breach and inundation analyses and models completed during the past 3 years at our various sites following CDA guidelines.



While we believe that appropriate steps have been taken to prevent safety incidents, there are inherent risks involved with tailings facilities, including among other things, seismic activity, particularly in seismically active regions such as Peru, Chile and Guatemala, and the ability of field investigations completed prior to construction to detect weak foundation materials. There can be no assurance that a dam or other tailings facility safety incident will not occur and such an incident could have a material adverse effect on our operations and profitability.

In addition to increasing regulatory requirements and operational risks, claims from local communities and NGOs with respect to real or alleged environmental incidents are becoming more common and may impact operations. In the case of legitimate claims, such actions could result in injunctions, suspensions, or other work stoppages, including revocation of permits, or significant fines or awards of damages. In other cases, we may be subject to frivolous or exaggerated claims made in an effort to obstruct or prevent mining operations or to affect our reputation. We have and continue to face such alleged claims in Guatemala related to the Escobal mine, as well as in Peru, Brazil and Chile.

## **Community Action**

The success of our business is, in many ways, dependent on maintaining positive and respectful relationships with communities in the areas where we work. There is an increasing level of public concern relating to the perceived effects of mining activities, particularly on communities and peoples impacted by such activities. Communities and certain NGO's that oppose resource development have become more vocal and active with respect to the impact of mining activities. Adverse publicity related to extractive industries or specifically to Pan American's operations, could have an adverse effect on our reputation, impact our relationships with the communities in which we operate, and ultimately have a material adverse effect on our business, financial condition and results of operations. Some communities and NGOs have taken actions, such as installing road blockades, applying for injunctions for work stoppage, filing lawsuits for damages or to challenge our ownership or use of property, and intervening and participating in lawsuits seeking to cancel or revoke our rights, permits and licences that are necessary for our operations to continue, which could materially impact our business. These actions relate not only to current activities but are often in respect of past activities by prior owners of mining properties. NGOs may also lobby governments for changes to laws, regulations and policies pertaining to mining, which, if made, could have a material adverse effect on our business, financial condition and results of operations. The manner with which we respond to civil disturbances and other activities can give rise to additional risks where those responses are perceived to be inconsistent with international standards, including those with respect to human rights.

On June 18, 2014, seven plaintiffs filed an action against Tahoe in the British Columbia Supreme Court alleging battery and negligence regarding a security incident that occurred at the Escobal mine on April 27, 2013. The plaintiffs sought compensatory and punitive damages. In April 2017, three of the seven plaintiffs settled their claims against Tahoe. On July 30, 2019, we settled on behalf of Tahoe, the remaining four plaintiffs' claims and the British Columbia Supreme Court action was dismissed.

Since June 7, 2017, a group of protesters near the town of Casillas has blocked the primary highway that connects Guatemala City to San Rafael Las Flores and the Escobal mine that we recently acquired. Operations were reduced between June 8 and June 19, 2017, to conserve fuel, and on July 5, 2017, were ultimately ceased following the Supreme Court's provisional decision to suspend the Escobal mining license while the case against the Guatemala MEM was heard on the merits. A second roadblock was initiated in 2018 near the community of Mataquesuintla. While we continue our efforts to regain trust and repair relationships, there is no guarantee that a positive resolution will be reached or that the roadblocks will be removed.

In early May 2021, PASG and the Guatemala MEM were served with legal proceedings that were originated in the Constitutional Court of Guatemala by a small group of residents and landowners, or alleged residents and landowners, from the La Cuchilla community near the Escobal mine claiming that prior mining activities damaged their lands. Currently, operations at Escobal are suspended pending the completion of the government-led ILO 169 consultation process. Nevertheless, the action sought injunctive relief to prevent future mining activities at Escobal. The claims against PASG and the Guatemala MEM and related appeals have subsequently been denied by the Constitutional Court. While we believe that these claims against PASG were procedurally and substantively flawed and without merit, further proceedings of this nature that are intended to impact or prohibit future operations remain possible.

Artisanal, or informal, mining is associated with a number of negative impacts, including environmental degradation, forced labour, human trafficking and funding of conflict. These activities are largely unregulated and work conditions are often unsafe and present health risks to the artisanal miners and local communities, which while unrelated to our operations, may have a material impact on them. Informal miners are active on land adjacent to our Shahuindo operation. These miners, represented by the Asociación de Mineral Artesanal San Blas ("AMASBA"), are in dialogue with the Peruvian government to formalize their operations. We support formalization and are collaborating with the government, local authorities and AMASBA in this regard.

Pan American is continuing with the implementation of TSM, a program designed to enhance our community engagement processes, drive world-class environmental practices and reinforce our commitment to the safety and health of our employees and surrounding communities. As part of TSM, we have implemented

response mechanisms which help us manage our social risks by better understanding and responding to community questions or concerns around the perceived or actual impacts of our activities. While we are committed to operating in a responsible manner, there is no assurance that our efforts will be successful at mitigating adverse impacts to our operations, and we may suffer material consequences to our business, including among other things, delays and closures, increased costs, and significant reputational damage.

From time to time, individuals or communities may allege that our activities have impacted or are impacting their human rights. For example, we recently completed a relocation process with certain individuals regarding a 2015 relocation of worker housing at our La Colorada project. This was done with the assistance of external relocation consultants and under the observations of the Office of the United Nations High Commissioner for Human Rights in Mexico. A number of individuals declined to participate in the relocation process and they continue to pursue legal avenues for compensation. Please also refer to “Risks Related to Our Business – Title to Assets”.

In Canada, recent jurisprudence has permitted foreign claimants to bring legal actions in relation to alleged human rights violations and tort claims which may have occurred in their home country. This includes the adoption of international customary law principles as actionable torts in Canada. In addition, international bodies, such as the Inter-American Commission and the Inter-American Court of Human Rights, may adopt precautionary measures or make orders for member states in respect of human rights violations that could materially impact our operations. In 2019 we established a Global Human Rights Policy, which sets out our commitment to respect human rights. We also appointed a Human Rights Officer. To align with international best practices, we have conducted a gap assessment of our security practices against the requirements of the Voluntary Principles on Security and Human Rights and UNICEF’s Child Rights and Security Checklist at our three operations with armed security forces: La Colorada and Dolores in Mexico, and Escobal in Guatemala. As part of our commitment to driving global sustainable development and contributing to the United Nations Sustainable Development Goals, we became signatories to the United Nations Global Compact in July 2020. As a signatory, we annually report our progress on embedding the United Nations Global Compact Principles into business operations. These initiatives were designed, in part, to further reduce the risks of negative impacts on human rights and alleged human rights violations. However, there is no assurance that claims of human rights violations will not be asserted against us and we may suffer material consequences to our business, including among other things, damages awards, delays and closures, increased costs, and significant reputational damage.

## **Developments Regarding Indigenous Peoples**

Some of our operations are near areas presently or previously inhabited or used by Indigenous peoples or have communities nearby. There are many national and international laws, regulations, conventions, codes and other instruments dealing with the rights of Indigenous peoples that impose obligations on governments and entities. Many of these are complex and interwoven in application, and are integrated and applied differently by governments, communities, Indigenous peoples, and other interest groups. These may include a mandate that government consult with Indigenous peoples in the areas around our projects and mines regarding actions affecting local stakeholders, prior to granting us mining rights, permits or approvals. Applicable conventions, such as the ILO Convention 169 which has been ratified by Argentina, Bolivia, Brazil, Chile, Guatemala, Mexico, and Peru, is an example of such an international convention and one that is presently impacting our operations in Guatemala where the Escobal mine has been suspended pending completion of an ILO 169 consultation process.

The United Nations Declaration on the Rights of Indigenous Peoples (“UNDRIP”) was negotiated over a 24-year period with Indigenous peoples, member states and UN experts and was adopted by the UN General Assembly in September 2007. Canada officially endorsed UNDRIP in 2016 and in June 2021, the *United Nations Declaration on the Rights of Indigenous Peoples Act* (the “UNDRIP Act”) was enacted into law in Canada to align and harmonize Canadian laws with UNDRIP. The substantive impact of UNDRIP on each member states’ obligations to Indigenous peoples, including in Canada, remains uncertain, particularly with respect to the principle of free, prior and informed consent. At minimum, UNDRIP and the UNDRIP Act are likely to result in more robust consultation processes with potentially affected Indigenous peoples where projects trigger their application. Such requirements under UNDRIP and the associated application under Canadian law could impact our operations and our ability to develop new operations.

In Canada, our Timmins West and Bell Creek operations engaged in consultation processes with local First Nations communities, and Lake Shore is a party to IBAs with certain local First Nation communities which outlines a framework for the ongoing relationship between the parties, including with respect to consultation.

New or amended laws, regulations and conventions respecting the rights of Indigenous peoples, including with respect to the acquisition and use of lands, may alter decades old arrangements or agreements made by prior owners of our mines and properties, or even those made by us in more recent years. There can be no guarantee that we have entered into all agreements with Indigenous peoples in accordance with the laws and international standards and norms governing such relationships or that future laws and actions will not have a material adverse effect on our rights or ability to explore or mine, or on our financial position, cash flow, and results of operations. Furthermore, it is not uncommon for Indigenous peoples to challenge agreements or arrangements previously entered into for various reasons. Public opposition, including opposition by NGOs, to mining activities has also increased in recent years, in part due to the perceived effects of those activities on local communities and on

Indigenous peoples. There has been an increase in resort to strategic litigation supported by NGOs and other interest groups in reference to laws, regulations and conventions respecting the rights of Indigenous peoples, which if targeted at our operations, could have a material impact on the future operations of our mines.

If we cannot maintain an agreement or positive relationship with Indigenous peoples in respect of our operations, there may be significant disruptions in our operations and activities, we may be subject to legal or administrative proceedings, and we may be precluded from operating, or from continuing to operate, in such areas. There could also be significant harm to our reputation. The risks associated with operating or conducting activities in or near areas presently or previously inhabited by Indigenous peoples could further impact our ability to acquire or advance development projects and complete, or realize benefits from, future acquisitions.

## **Exploration and Development Risks**

The long-term operation of our business and its profitability is dependent, in part, on the cost and success of our exploration and development programs. Mineral exploration and development is highly speculative and involves significant risks. Few properties that are explored are ultimately developed into producing mines. There is no assurance that our mineral exploration and development programs will result in discoveries of economic quantities of mineralization that are necessary for a property to be brought into commercial production. The commercial viability of a mineral deposit, once discovered, is also dependent upon a number of factors, including, among other things: (i) the particular attributes of the deposit, such as size, grade, and metallurgy; (ii) interpretation of geological data; (iii) feasibility studies; (iv) proximity to infrastructure and availability of labour, power, and water; (v) metal prices; (vi) foreign currency exchange rates; and (vii) government regulations, including regulations relating to development, taxation, royalties, import and export, and environmental protection.

The actual operating results of our projects may differ materially from those we had anticipated due to these and other factors, many of which are beyond our control. There can be no assurance that our acquisition, exploration, and development programs will yield new mineral reserves to replace or expand current mineral reserves, or that they will result in additional production. Unsuccessful exploration or development programs could have a material adverse effect on our operations and profitability.

## **Imprecision in Mineral Reserve and Mineral Resource Estimates**

Our mineral reserves and mineral resources are estimates. No assurances can be given that the estimated levels of mineral reserves or mineral resources are accurate, or that the estimates will result in material being produced or processed profitably. These estimates are expressions of judgment based on knowledge and experience and are based on assumptions and interpretation of available geological, geochemical and operational data and information. Valid estimates made at a given time may significantly change when new information becomes available. It may take many years from the initial phase of drilling before production occurs, and during that time, the economic feasibility of our projects may change and may ultimately prove unreliable.

Fluctuations in the market price of silver, gold and other metals, as well as increased capital or production costs or reduced recovery rates, may render our mineral reserves uneconomic to develop for a particular project or result in a reduction of mineral reserves. No assurances can be given that any mineral resource estimate will ultimately be reclassified as proven or probable mineral reserves or that mineralization can be mined or processed profitably. Inferred mineral resources have a great amount of uncertainty as to their existence and as to their economic and legal feasibility. Mineral resource estimates may also be recalculated based on actual production experience. The evaluation of mineral reserves or mineral resources is influenced by economic and technological factors, which may change over time. If our mineral reserve or mineral resource figures are reduced in the future, this could have an adverse impact on Pan American's future cash flows, earnings, results of operations, and financial condition.

This AIF and the documents incorporated by reference herein have been prepared and disclosed in accordance with the requirements of Canadian securities laws that differ from the requirements of United States securities laws. Please refer to the section, "Cautionary Note to U.S. Investors Concerning Estimates of Mineral Reserves and Mineral Resources" section on page 6.

## **Production and Cost Estimates**

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

Actual production and costs may vary from estimates for a variety of reasons, including actual ore mined varying from estimates of grade, tonnage, dilution and metallurgical and other characteristics; short-term operating factors relating to the mineral reserves, such as the need for sequential development of orebodies and the processing of new or different ore grades; and risks and hazards associated with mining. In addition, there can be no assurance that silver recoveries or other metal recoveries in small scale laboratory tests will be duplicated in larger scale tests under on-site conditions or during production, or that the existing known and experienced recoveries will continue. Costs of production may also be affected by a variety of factors, including changing stripping ratios, ore grade metallurgy, labour costs and productivity, costs of supplies and services (such as, for example, fuel and power), general inflationary pressures, and currency exchange rates. Failure to achieve production estimates could have an adverse impact on our future cash flows, earnings, results of operations, and financial condition.

## **Infrastructure**

Mining, processing, development, and exploration activities depend, to one degree or another, on adequate infrastructure. Reliable roads, bridges, power, and water supply are important determinants for capital and operating costs, and sufficient and functional processing equipment and facilities are critical to our operations. The lack of availability or the delay in the availability of any one or more of these items could prevent or delay the development of our projects, result in the failure to achieve the anticipated production volume, and increase the construction costs and ongoing operating costs associated with our projects and operations. Similarly, continued improvements or replacement of existing infrastructure may require high capital investments and involve significant delays. In addition, unusual weather phenomena, sabotage, government, or other interference in the maintenance or provision of such infrastructure could adversely affect our operations and profitability.

## **Replacement of Reserves**

The La Colorada, Dolores, Jacobina, Huaron, Morococha, Shahuindo, La Arena, Timmins West, Bell Creek, El Peñon, Minera Florida, San Vicente and Manantial Espejo (including COSE and Joaquin) mines accounted for all of our production in 2023, with Jacobina, El Peñon, Minera Florida, and Cerro Moro contributing from March 31, 2023 to December 31, 2023. Morococha was placed on care and maintenance in early 2022 and was sold in the fourth quarter of 2023. Current LOM plans provide for a defined production life for mining at each of our mines. For example, active mining at the Alamo Dorado mine ended in 2017 and the mine was transitioned to a reclamation phase. At the Dolores mine, mining of the open pit and stacking on the heap is expected to continue until the third quarter of 2024, with the property entering into its reclamation phase thereafter while residual leaching continues for a few years. There is no assurance that any of our green field or near mine exploration projects will be successful, and substantial expenditures are required to establish mineral reserves. If our mineral reserves are not replaced either by the development or discovery of additional mineral reserves and/or extension of the LOM at our current operating mines or through the acquisition or development of additional producing mines, this could have an adverse impact on our future cash flows, earnings, results of operations, and financial condition, and this may be compounded by requirements to expend funds for reclamation and decommissioning.

## **Trading Activities and Credit Risk**

The zinc, lead, and copper concentrates produced by us are sold through long-term supply arrangements to metal traders or integrated mining and smelting companies. The terms of the concentrate contracts may require us to deliver concentrate that has a value greater than the payment received at the time of delivery, thereby introducing us to credit risk of the buyers of our concentrates. Should any of these counterparties not honour supply arrangements, or should any of them become insolvent, we may incur losses for products already shipped and be forced to sell our concentrates in the spot market or we may not have a market for our concentrates and therefore our future operating results may be materially adversely impacted.

As at December 31, 2023, we had receivable balances associated with buyers of our concentrates of \$17.5 million (2022 - \$28.7 million). The vast majority of our concentrate is sold to a limited number of concentrate buyers.

Doré production is refined under long term agreements with fixed refining terms at eleven 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. For example, in November 2018, Republic, a refinery used by us, filed for bankruptcy. At the time of the bankruptcy, Republic had possession of approximately \$4.9 million of our metal and we pursued a claim to collect damages. At December 31, 2023, we had approximately \$10.8 million (2022 - \$37.0 million) of value contained in precious metal inventory at refineries. We maintain insurance coverage against the loss of precious metals at our mine sites and in-transit to refineries. Risk is transferred to the refineries at various stages from mine site to refinery.

Refined silver and gold are 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 our counterparties' credit risk 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 we operate. These advances represent a credit risk to us to the extent that suppliers do not deliver products or perform services as expected. As at December 31, 2023, we had made \$10.4 million of supplier advances (2022 - \$8.9 million), which are reflected in "Trade and other receivables" on Pan American'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 AIF, by investing in other companies we will be exposed to the risks associated with owning equity securities and those risks inherent in the investee companies.

## Taxation Risks

In addition to the risks relating to taxation discussed under the heading "Risks Related to Our Business – Governmental Regulation", we are also exposed to other tax related risks. In assessing the probability of realizing income tax assets, we make 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 our 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 and taxes that become payable. Future changes in tax laws could also limit us from realizing the tax benefits from the deferred tax assets. We reassess unrecognized income tax assets at each reporting period.

## Exchange Rate Risk

We report our financial statements in USD; however, we operate in jurisdictions that utilize other currencies. As a consequence, the financial results of our operations, as reported in USD, are subject to changes in the value of the USD relative to local currencies. Since our sales are denominated in USD and a portion of our operating costs and capital spending are in local currencies, we are negatively impacted by strengthening local currencies relative to the USD and positively impacted by the inverse.

From time to time, we mitigate part of this currency exposure by accumulating local currencies, entering into contracts designed to fix or limit our 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. Pan American held cash and short-term investments of \$47.6 million in CAD, \$0.4 million in ARS, \$3.2 million in MXN, \$9.2 million in BOB, \$6.1 million in PEN, \$0.4 million in BRL, \$1.2 million in CLP and \$0.2 million in GTQ, as at December 31, 2023. At December 31, 2023, Pan American had the following outstanding positions on foreign currency exposure of purchases:

	USD Notional	Weighted Average USD Forward Rate	Weighted Average USD Put Rate	Weighted Average USD Call Rate	Expiry Dates
Peruvian sol forwards	36.0	3.86			Jan 2024 to Dec 2024
Canadian dollar collars	18.0		1.36	1.42	Jan 2024 to Dec 2024
Canadian dollar forwards <sup>1</sup>	72.0	1.39			Jan 2024 to Dec 2024
Chilean peso collars <sup>2</sup>	24.0		905	956	Jan 2024 to Dec 2024
Chilean peso forwards	48.0	910			Jan 2024 to Dec 2024
Brazilian real forwards	12.0	5.19			Jan 2024 to Dec 2024

---

Notes:

- 1 Canadian dollar forwards: Of the \$72.0 million of notional outstanding, \$24.0 million of notional is related to enhanced forwards with reset strikes at \$1.35 if CAD trades outside an average range of \$1.30 to \$1.42. Once the enhanced forward is reset, the reset strike applies for the notional if below the reset strike and for a 33% increase in notional above the reset strike.
- 2 Chilean Peso collars: \$24.0 million of notional is related to enhanced collars with participation between average strike rates of \$905 and \$956. At each monthly expiry, if CLP is above an average strike of \$956, CLP is exercised at an average conditional strike of \$927.

For the year ended December 31, 2023, we recorded gains of \$7.7 million (2022 - gains of \$2.0 million) on our foreign currency derivative contracts.

Our 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 our 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 exchange rates that were significantly different than the unofficial exchange rates more readily utilized locally to determine prices and value. Our investments in Argentina are primarily funded from outside of the country, and therefore conversion of foreign currencies, like USD, at the official exchange rate has had the effect of reducing purchasing power and substantially increasing relative costs in an already high inflationary market. Maintaining monetary assets in ARS also exposes us to the risks of ARS devaluation and high domestic inflation.

Please refer to the "Risks and Uncertainties" section of the 2023 MD&A for a detailed sensitivity analysis of the effect of changes in the exchange rates of certain currencies against the USD on anticipated cost of sales for 2024.

## **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. In fact, in mid-2022 we limited all non-essential expenditures in response to the combined impacts of declining precious metals prices, inflation, and supply chain issues.

We are required to use a portion of our cash flow to service principal and interest on debt, which will limit the cash flow available for other business opportunities. We also maintain and enter into intercompany credit arrangements with our subsidiaries in the normal course. Our ability to make scheduled principal payments, pay interest on or refinance our indebtedness depends on our future performance, our cash flows, and applicable interest rates, which directly impacts our costs of financing, and which are subject to economic, financial, competitive and other factors beyond our control. Unexpected delays in production, the suspension of our mining licenses, or other operational problems could impact our ability to service the debt and make necessary capital expenditures when the debt becomes due. If we are unable to generate such cash flow to timely repay any debt outstanding, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance our indebtedness will depend on the capital markets, applicable interest rates, and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations.

While we have paid dividends to our shareholders for many years, the payment of dividends is impacted by our cash flows and liquidity situation. The payment of any future dividends is at the discretion of our Board of Directors after taking into account many factors, including availability of and sources of cash, future anticipated funding needs, our debt position, general and regional economic conditions, and expectations with respect to operational matters such as anticipated metals production and metals prices. There can be no assurance that dividends will continue to be paid in the future or on the same terms as are currently paid by Pan American.

## **Credit Rating**

There can be no assurance that the credit ratings and outlook assigned to Pan American will remain in effect for any given period of time or that any such rating or outlook will not be revised downward or withdrawn entirely by a rating agency. Real or anticipated changes in its credit ratings may affect the cost at which Pan American can access the capital markets. If such ratings decline and its cost of accessing capital markets increases, Pan American may not be able to fund proposed capital expenditures and other operations in the future.

## **Limited Supplies and Supply Chain Disruptions**

Our operations depend on an uninterrupted supply of reagents (including cyanide at some operations), production inputs, and other supplies and resources such as skilled personnel. Supply may be interrupted due to a shortage or the scarce nature of inputs, especially with regard to chemical reagents. Supply might also be interrupted due to transportation and logistics associated with the remote location of some of our operations, and government restrictions or regulations which delay importation of necessary items. COVID 19 had a significant impact on global supply chains, which impacted our ability to source supplies required for our operations and increased the costs of those supplies. Both Russia's invasion and continuing war of aggression in the Ukraine and the destabilization in the Middle East and disruptions to shipping directly and indirectly related to the conflict in Gaza following the October 2023, Hamas terrorist attack against Israel, have also had significant impacts on the supply of certain goods and fuels. Any interruptions to the procurement and supply of reagents, production inputs and other supplies, or the availability of skilled personnel, as well as increasing rates of inflation, could have an adverse impact on our future cash flows, earnings, results of operations, and financial condition.

## **Competitive Conditions**

The mining industry is very competitive, particularly with respect to properties that produce, or are capable of producing, silver, gold, and other metals. Mines have limited lives and, as a result, Pan American continually seeks to replace and expand mineral reserves through the acquisition of new properties. In addition, there is a limited supply of desirable mineral lands available in areas where we would consider conducting exploration and/or production activities. Because we face strong competition for new properties from other mining companies, some of which have greater financial resources than we do, we may be unable to acquire attractive new mining properties on terms that we consider acceptable.

Competition for resources is intense, particularly affecting the availability of manpower, drill rigs, mining equipment, and production equipment. Competition in the mining business for limited sources of capital could adversely impact our ability to acquire and develop suitable silver mines, silver developmental projects, silver producing companies, or properties having significant exploration potential. As a result, there can be no assurance that our acquisition and exploration programs will yield new mineral reserves to replace or expand current mineral reserves, or that we will be able to maintain production levels in the future.

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

## **Employee Recruitment, Retention and Human Error**

Recruiting and retaining qualified personnel is critical to our success. We are dependent on the services of key executives including Pan American's President and Chief Executive Officer and other highly skilled and experienced executives and personnel focused on managing our interests. The number of persons skilled in acquisition, exploration, and development of mining properties is limited and competition for such persons is intense. As our business activity grows, we will require additional key financial, administrative, and mining personnel as well as additional operations staff. In addition, as a result of the implementation of COVID-19 related restrictions, technology, and the growth in work from home or hybrid employment arrangements, employees have become more mobile and available to a wider pool of employers and industries, presenting further challenges in retaining key personnel. There can be no assurance that we will be successful in attracting, training, and retaining qualified personnel as competition for persons with these skill sets increases. If we are not successful in attracting, training, and retaining qualified personnel, the efficiency of our operations could be impaired, which could have an adverse impact on Pan American's future cash flows, earnings, results of operations, and financial condition.

Even when efforts to attract and retain qualified personnel and consultants to manage our interests are successful, people are fallible and human error and mistakes could result in significant uninsured losses to us. These could include, but are not limited to, loss or forfeiture of mineral claims or other assets for non-payment of fees or taxes, erroneous or incomplete filings or non-fulfillment of other obligations, significant tax liabilities in

connection with any tax planning effort we might undertake or mistakes in interpretation and implementation of tax laws and practices, and legal claims for errors or mistakes by our personnel.

## **Employee Relations**

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

## **Economic Dependence**

We have 29 customers that account for 100% of the concentrate and silver and gold sales revenue. The Company has 3 customers that accounted for 21%, 21% and 12% of total sales in 2023. The loss of certain of these customers or curtailment of purchases by such customers could have a material adverse effect on our results of operations, financial condition, and cash flows.

## **General Economic Conditions**

General economic conditions may adversely affect our growth, profitability and ability to obtain financing. Events in global financial markets in the past several years have had a profound impact on the global economy, particularly in connection with the COVID-19 pandemic and the related injection of monetary support and the massive increase in government debt in response thereto, causing significant global inflationary pressures. Many industries, including the silver and gold mining industry, were impacted by these market conditions. Some of the key impacts of the current financial market turmoil include contraction in credit markets resulting in a widening of credit risk, inflation and significant interest rate increases, currency devaluations, high volatility in global equity, commodity, foreign exchange and precious metal markets and a lack of market confidence and liquidity. A continued or worsened slowdown in the financial markets or other economic conditions, including but not limited to, consumer spending, employment rates, business conditions, inflation, fuel and energy costs, consumer debt levels, lack of available credit, the state of the financial markets, interest rates and tax rates, may adversely affect our growth, profitability and ability to obtain financing. A number of issues related to economic conditions could have a material adverse effect on our business, financial condition and results of operations, including:

- inflation, volatility and other pressures in credit markets could impact the cost and availability of financing and our overall liquidity;
- the volatility of silver, gold and other metal prices would impact our revenues, profits, losses and cash flow;
- recessionary pressures could adversely impact demand for our production;
- volatile energy, commodity and consumables prices and currency exchange rates could impact our production costs;
- Russia's invasion of the Ukraine, the threat of expanded conflict in Europe, the conflict in Gaza and broader threat of international conflict and terrorism, and other geo-political instability; and
- the devaluation and volatility of global stock markets could impact the valuation of our equity and other securities.

## **Compliance**

We are subject to complex laws and regulatory regimes that differ in the various jurisdictions in which we operate and are sometimes extra-jurisdictional in application. Ensuring that such laws and regulatory requirements are understood and followed by our personnel is difficult and we may inadvertently fail to comply with such laws and requirements or they may be contravened by our personnel. We have established programs, policies, controls, training, and monitoring to reduce and mitigate risks in certain areas, including anti-corruption compliance. In this respect, we have adopted a Global Code of Ethical Conduct, a Global Anti-Corruption Policy, and a Supplier Code of Conduct, developed a training program, implemented internal controls to identify potential risks, and taken other steps to reduce the risk of non-compliance with applicable anti-corruption laws, including in the United States and Canada. However, there is no guarantee such programs, policies, controls, training or monitoring will prevent violations of the law, particularly by individual employees or agents. Violations of such laws, particularly those relating to corruption, could lead to the imposition of substantial fines, penalties or other civil or criminal prosecution or sanctions, and could severely damage our reputation. Such fines, penalties, and sanctions, and any damage to our reputation, could have a material adverse effect on our business.



## **Climate Change**

There is significant evidence of the effects of climate change on our planet and an intensifying focus on addressing these issues. We recognize that climate change is a global challenge that may have both favorable and adverse effects on our business in a range of possible ways. Mining and processing operations are energy intensive and result in a carbon footprint either directly or through the purchase of fossil-fuel based electricity. As such, we are impacted by current and emerging policy and regulation relating to greenhouse gas emission levels, energy efficiency, and reporting of climate-change related risks. While some of the costs associated with reducing emissions may be offset by increased energy efficiency, technological innovation, or the increased demand for our metals as part of technological innovations, the current regulatory trend may result in additional transition costs at some of our operations. Governments are introducing climate-change legislation and treaties at the international, national, and local levels, and regulations relating to emission levels and energy efficiency are evolving and becoming more rigorous. Current laws and regulatory requirements are not consistent across the jurisdictions in which we operate, and regulatory uncertainty is likely to result in additional complexity and cost in our compliance efforts. Public perception of mining is, in some respects, negative and there is increasing pressure to curtail mining in many jurisdictions as a result, in part, of perceived adverse effects of mining on the environment and on local communities. Concerns around climate change may also affect the market price of our shares as institutional investors and others may divest interests in industries that are thought to have more environmental impacts. While we are committed to operating responsibly and reducing the negative effects of our operations on the environment, our ability to reduce emissions and energy and water usage by increasing efficiency and adopting new innovation is constrained by technological advancement, operational factors, and economics. Adoption of new technologies, the use of renewable energy, and infrastructure and operational changes necessary to reduce water usage may also increase our costs significantly. Concerns over climate-change, and our ability to respond to regulatory requirements and societal pressures, may have significant impacts on our operations and our reputation and may even result in reduced demand for our products.

The physical risks of climate-change could also adversely impact our operations. These risks include, among other things, extreme weather events, resource shortages, changes in rainfall and storm patterns and intensities, water shortages, changing sea levels, and extreme temperatures. Climate-related events such as mudslides, floods, droughts, and fires can have significant impacts, directly and indirectly, on our operations and could result in damage to our facilities, disruptions in accessing our sites with labour and essential materials or in shipping products from our mines, risks to the safety and security of our personnel and to communities, shortages of required supplies such as fuel and chemicals, inability to source enough water to supply our operations, and the temporary or permanent cessation of one or more of our operations. There is no assurance that we will be able to anticipate, respond to, or manage the risks associated with physical climate-change events and impacts, and this may result in material adverse consequences to our business and to our financial results.

## **Pandemics**

With the outbreak of COVID-19 in late 2019, it became clear that the spread of pandemics could have significant impacts on our operations, our business, our employees and contractors, and our suppliers and service providers. In addition, such a pandemic could also result in our operations becoming subject to quarantine, suspension or shut down. A future pandemic could also have material adverse effects on a national and international scale, resulting in an economic downturn that could have significant impacts on commodity prices, demand for metals, investor confidence, financial markets, and the local and global supply chains, all of which may adversely affect our business and the market price of our Common Shares. Such effects could not only affect our business and results of operations, but also the operations of our suppliers, contractors and service providers, including smelter and refining service providers. Any of these developments, and others, related to pandemics could have a material adverse effect on our business and results of operations.

## **Information and Cyber Security**

The secure processing, maintenance, and transmission of information and data is critical to our business. Furthermore, we and our third-party service providers collect and store sensitive data in the ordinary course of our business, including personal information of our employees, as well as proprietary and confidential business information relating to ourselves and in some cases, our customers, suppliers, investors and other stakeholders. With the increasing dependence and interdependence on electronic data communication and storage, including the use of cloud-based services and personal devices, we are exposed to evolving technological risks relating to this information and data. These risks include targeted attacks on our systems or on systems of third parties that we rely on, failure or non-availability of a key information technology systems, or a breach of security measures designed to protect our systems. While we employ security measures in respect of our information and data, including implementing systems to monitor and detect potential threats, the performance of periodic audits, and penetration testing, we cannot be certain that we will be successful in securing this information and data and there may be instances where we are exposed to malware, cyber-attacks or other unauthorized access or use of our information and data. Any data breach or other improper or unauthorized access or use of our information could have a material adverse effect on our business and could severely damage our reputation, compromise our network or systems and result in a loss or escape of sensitive information, a misappropriation of assets or incidents of fraud, disrupt our normal operations, and cause us to incur additional time and expense to remediate and improve our information systems. For example, in 2020, a silver concentrate customer on the basis of a fraudulent

email received referencing the concentrate delivery details from Bolivia and the precise payment amounts due, made payment for the concentrate shipment into an unknown bank account, impacting both the customer and payment to us. In addition, we could also be subject to legal and regulatory liability in connection with any such cyber-attack or breach, including potential breaches of laws relating to the protection of personal information.

## **Stakeholder Confidence**

Our business and operations require us to develop and maintain strong and trusting relationships with key stakeholders, including local communities, Indigenous peoples, governments, unions, and other groups and institutions. Poor management of these relationships, inadequate attention to matters of importance to these stakeholders, and operating in a manner that is perceived as unethical or damaging to the environment or to people could result in an erosion of trust and confidence in us and have negative impacts on our business and our financial and operating results. It can also affect our reputation more broadly, including with shareholders, government bodies, NGOs and other interest groups, the media, and the general public. A loss of trust and confidence and negative public opinion could impact our ability to obtain permits, licenses and other approvals, impede our efforts to find growth opportunities, materially increase our costs and expenses, result in legal claims and challenges, decrease the price of our shares and create negative market sentiment, all of which could have material impacts on our business and profitability. Since 2020, the importance of ESG performance requirements, standards and reporting has increased significantly across all stakeholder groups. While the Company has in place numerous programs and commitments with respect to ESG, there is no assurance that the Company will be able to adequately address all ESG pressures and potential requirements to maintain stakeholder confidence.

## **Acquisitions and Integration**

An element of our business strategy is to make selected acquisitions. For example, we completed the Yamana Acquisition on March 31, 2023. Further, we completed the Tahoe Acquisition on February 22, 2019, and spent significant time and effort on integrating the Tahoe operations and workforce during the remainder of 2019 and into 2020. Over our history, we have also completed a number of other important acquisitions, including: the La Colorada mine in 1998; Corner Bay (the Alamo Dorado mine) in 2003; Argentum (the Morococha mine) in 2004; the remaining 50% interest in the Manantial Espejo project in 2006; an additional 40% interest in PASB in respect of the San Vicente mine in May 2007; Aquiline (the Navidad property) in 2010; Minefinders (the Dolores mine) in 2012; and in 2017, the Joaquin and COSE properties in Argentina. We expect to continue to evaluate acquisition opportunities on a regular basis and intend to pursue those opportunities that we believe are in our long-term best interests. The success of our acquisitions will depend upon a number of factors, including the adequacy, completeness, analysis and interpretation of information obtained during due diligence, our ability to effectively manage the integration and operations of entities once we complete an acquisition, and our ability, in some cases, to make improvements or advancements that we anticipated. The process of managing acquired businesses may involve unforeseen difficulties and risks and may require a disproportionate amount of management resources and expenditures. There can be no assurance that we will be able to successfully manage the integration and operations of businesses we acquire, or that the anticipated benefits of our acquisitions will be realized.

In addition to acquisitions, we periodically enter into joint venture, option and similar arrangements which, among other things, also require an investment in time and capital, and are subject to risks associated with due diligence matters. We also occasionally make investments in other mining companies, such as our investments in New Pacific Metals Corp. Such arrangements may depend, in part, on other parties and may be speculative in nature. There is no guarantee that any of these arrangements will be successful or that we will recover any capital or other investments made in relation thereto.

## **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 IFRS. Management assesses the effectiveness of our internal control over financial reporting based on the criteria set forth in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. We also engage an independent registered public accounting firm to audit and provide independent opinions on the effectiveness of our internal control over financial reporting.

We may fail to achieve and maintain the adequacy of our internal control over financial reporting as such standards are modified, supplemented, or amended from time to time, and we may not be able to ensure that we can conclude on an ongoing basis that we have effective internal control over financial reporting. 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. No evaluation can provide complete assurance that our internal control over financial reporting will prevent or detect misstatements on a timely basis or detect or uncover all failures of persons employed by us to disclose material information otherwise required to be reported. The effectiveness of our control and procedures could also be limited by simple errors or faulty judgments. In

addition, as we continue to expand, the challenges involved in implementing appropriate internal control over financial reporting will increase and will require that we continue to improve our internal control over financial reporting.

Our failure to satisfy these requirements on a timely basis could result in the loss of investor confidence in the reliability of our financial statements, which in turn could harm our business and negatively impact the trading price of our shares or market value of our other securities. In addition, any failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our operating results or cause us to fail to meet our reporting obligations. There can be no assurance that we will be able to remediate material weaknesses, if any, identified in future periods, or maintain all of the controls necessary for continued compliance, and there can be no assurance that we will be able to retain sufficient skilled finance and accounting personnel, especially in light of the increased demand for such personnel among publicly traded companies. Future acquisitions of companies may provide us with challenges in implementing the required processes, procedures, and controls in our acquired operations. Acquired companies may not have disclosure controls and procedures or internal control over financial reporting that are as thorough or effective as those required by securities laws applicable to us.

## **Claims and Legal Proceedings**

We are subject to various claims and legal proceedings covering a wide range of matters that arise in the ordinary course of business activities.

Many of these claims are from current or ex-employees, or employees of former or current owners of our operations such as the Quiruvilca-related claims in Peru, which could in the aggregate, be of significant value, and include alleged improper dismissals, workplace illnesses, such as silicosis, and claims for additional profit-sharing and bonuses in prior years. In some cases, we may also be subject to collective settlement obligations with our employees and contractors relating to closures of our operations, and such obligations may be significant.

We may also become subject to class action lawsuits. For example, in mid-2017, Tahoe, which was acquired by us in late February 2019, and certain of its former directors and officers became the subject of three purported class action lawsuits filed in the United States that center primarily around alleged misrepresentations. These U.S. class action lawsuits were later consolidated into one class action suit that is ongoing in Nevada. In October 2018, Tahoe learned that a similar proposed class action lawsuit had been filed against Tahoe and its former chief executive officer in the Superior Court of Ontario. These lawsuits sought significant damages. We disputed the allegations made in these suits, and in January 2023, the plaintiffs and defendants reached a tentative global settlement to resolve both the United States and Canadian class actions. The proposed settlements, which fall within the Company's insurance limits, received final court approval on February 15, 2024. We do not anticipate any appeals.

We may also be subject to proceedings in our commercial relationships. While we would, where available and appropriate to do so, defend against any such allegations, if we are unsuccessful in our defense of these claims, we may be subject to significant losses.

Furthermore, we are in some cases directly or indirectly subject to claims or other legal processes by individuals, local communities, Indigenous peoples, private landowners or non-governmental organizations relating to land and mineral rights and tenure, or alleged environmental or social damage. Such claimants may seek sizeable monetary damages against us and/or the return or relinquishment of surface or mineral rights or revocation of permits and licenses that are valuable to us. For example, as described under the heading "Risks Relating to Our Business – Title to Assets", certain individuals have asserted community rights and land ownership over a portion of the La Colorada mine's surface lands in the Agrarian Courts of Mexico. They have also initiated a process before the SEDATU in Zacatecas to declare such lands as national property. If we are not able to maintain our interests in or title to lands or mineral rights, or if we are not otherwise successful in our defense against such claims, there could be significant impacts on our operations, including an inability to operate, and to our profitability.

Each of these matters is subject to various uncertainties and it is possible that some of these matters may be resolved unfavourably against 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 us. In addition, we may be involved in disputes with other parties in the future that may result in litigation, which could have a material adverse effect on our financial or operating position, cash flow and results of operations.

## DIVIDENDS

On February 15, 2010, Pan American's Board of Directors declared its first cash dividend and has paid a quarterly dividend since that time. Over the past three years, we have declared the following dividends:

Year	Declaration Date	Amount per Common Share
2023	• November 7	• \$0.10
	• August 9	• \$0.10
	• March 24	• \$0.10
	• February 22	• \$0.10
2022	• November 9	• \$0.10
	• August 10	• \$0.11
	• May 11	• \$0.12
	• February 23	• \$0.12
2021	• November 9	• \$0.10
	• August 10	• \$0.10
	• May 12	• \$0.07
	• February 17	• \$0.07

Each of the foregoing dividends was designated to be an eligible dividend for the purposes of the *Income Tax Act* (Canada). In 2022, we established a dividend policy to enhance shareholder return when our liquidity position is strong. The quarterly dividend had a base of \$0.10 per Common Share and was be adjusted variably depending on our net cash position (cash and cash equivalents plus short-term investments (other than equity securities) minus total debt) on the balance sheet for the completed quarter. The Board of Directors considered the dividend policy following the Yamana Acquisition, but has not yet adopted a new policy. However, the Board of Directors may, in the future, establish a new dividend policy in its discretion.

## MARKET FOR SECURITIES

Our Common Shares are listed and posted for trading on the Toronto Stock Exchange and, since April 18, 2023, the NYSE, both under the symbol "PAAS". Pan American was listed on The Nasdaq Stock Market until market close on April 17, 2023, when it changed its listing to the NYSE. The majority of trading of our Common Shares takes place in the United States, particularly when alternative trading systems are considered. The following table outlines the closing share price trading range and volume of shares traded by month in 2023 on the stock exchanges on which Pan American has listed its Common Shares:

Toronto Stock Exchange (CAD\$) <sup>1</sup>				Nasdaq Stock Market (USD\$) <sup>1</sup>			
Month	High	Low	Volume	Month	High	Low	Volume
January	\$ 25.67	\$ 23.51	12,456,380	January	\$ 19.14	\$ 17.17	16,423,405
February	\$ 24.95	\$ 19.93	12,469,837	February	\$ 18.75	\$ 14.68	15,386,751
March	\$ 25.13	\$ 20.77	31,475,612	March	\$ 18.48	\$ 15.07	28,455,732
				April <sup>2</sup>	\$ 19.49	\$ 17.82	12,668,491
				<b>New York Stock Exchange (USD\$)</b>			
April	\$ 26.19	\$ 23.11	23,600,066	April <sup>2</sup>	\$ 17.83	\$ 16.95	8,620,151
May	\$ 24.79	\$ 20.22	18,124,403	May	\$ 18.23	\$ 14.91	16,515,717
June	\$ 21.14	\$ 18.73	13,848,477	June	\$ 15.73	\$ 14.15	14,719,534
July	\$ 22.32	\$ 18.76	11,377,102	July	\$ 16.88	\$ 14.06	14,260,459
August	\$ 22.53	\$ 20.17	11,155,743	August	\$ 16.62	\$ 15.03	14,455,587
September	\$ 22.55	\$ 19.11	12,484,850	September	\$ 16.71	\$ 14.15	12,491,936
October	\$ 21.03	\$ 18.72	10,095,666	October	\$ 15.32	\$ 13.70	14,354,317
November	\$ 21.28	\$ 18.18	11,734,411	November	\$ 15.66	\$ 13.14	14,383,449
December	\$ 22.32	\$ 19.49	12,410,249	December	\$ 16.90	\$ 14.34	13,844,544

Notes:

- 1 Represents trading only on the named exchange and does not include any trading on alternative trading systems.
- 2 On April 18, 2023, Pan American transferred the listing of its Common Shares to the NYSE from the Nasdaq and began trading under its existing ticker symbol "PAAS". Pan American's Common Shares continued to trade on the Nasdaq until the market close on April 17, 2023.

## DIRECTORS AND EXECUTIVE OFFICERS

The names of our directors and executive officers as at December 31, 2023, are set out below, as well as their municipalities of residence, positions with Pan American, and principal occupations for the past five years:

Name and Municipality of Residence	Position with Pan American	Principal Occupation During the Past Five Years
JOHN BEGEMAN <sup>3,4</sup> Rapid City, South Dakota U.S.A.	Director since May 10, 2023	Corporate Director
ALEXANDER DAVIDSON <sup>4,5</sup> Vancouver, B.C. Canada	Director since May 10, 2023	Corporate Director; Chairman of NuLegacy Gold Corporation; Chairman of Americas Gold and Silver Corporation; Chairman of Orca Gold Inc. until May 2020
NEIL DE GELDER <sup>1,3</sup> Vancouver, B.C. Canada	Director since July 3, 2012	Corporate Director; Exec. VP of Stern Partners, a private diversified investment firm, prior to January 1, 2021
CHANTAL GOSSELIN <sup>1,4</sup> West Vancouver, B.C. Canada	Director since May 10, 2023	Corporate Director
CHARLES JEANNES <sup>2,3</sup> Reno, Nevada U.S.A.	Director since February 22, 2019	Corporate Director
KIMBERLY KEATING <sup>1,2</sup> Portugal Cove-St. Philip's, Newfoundland Canada	Director since May 10, 2023	Corporate Director; Chair of the Board of Major Drilling; COO of The Cahill Group until September 2021 and Senior Advisor to The Cahill Group until February 2022
JENNIFER MAKI <sup>1,5</sup> Toronto, Ontario Canada	Director since May 12, 2021	Corporate Director
WALTER SEGSWORTH <sup>2,4</sup> West Vancouver, B.C. Canada	Director since May 12, 2009	Corporate Director
KATHLEEN SENDALL <sup>2,5</sup> Calgary, Alberta Canada	Director since December 16, 2020	Corporate Director
MICHAEL STEINMANN Vancouver, B.C. Canada	Director (since January 1, 2016), and President and CEO	CEO of Pan American since January 1, 2016; President since February 18, 2015; prior to that, other senior management roles with Pan American since 2004
GILLIAN WINCKLER Vancouver, B.C. Canada	Director since May 11, 2016 Board Chair since May 12, 2021	Corporate Director
STEVEN BUSBY Vancouver, B.C. Canada	COO	COO of Pan American since May 13, 2008; prior to that, other senior management roles with Pan American since 2003
BRENT BERGERON North Vancouver, B.C. Canada	SVP, Corporate Affairs & Sustainability	SVP, Corporate Affairs & Sustainability since September 1, 2019; previously executive at Goldcorp Inc.
IGNACIO COUTURIER Vancouver, B.C. Canada	CFO	CFO of Pan American since March 2022; prior to that, other senior management roles with Pan American since 2004
SAM DRIER Vancouver, B.C. Canada	SVP, Business Development	SVP, Business Development since February 2023; previously, other senior management roles with Pan American since 2019
CHRISTOPHER EMERSON West Vancouver, B.C. Canada	VP, Exploration & Geology	VP, Exploration & Geology since April 2023; prior to that, VP, Corporate Development & Geology of Pan American since 2015

Name and Municipality of Residence	Position with Pan American	Principal Occupation During the Past Five Years
DELANEY FISHER Vancouver, B.C. Canada	SVP, Associate General Counsel & Corporate Secretary	SVP, Associate General Counsel & Corporate Secretary since January 2022; prior to that, other senior management roles with Pan American since 2008
GEORGE GREER Surrey, B.C. Canada	SVP, Project Development	SVP, Project Development of Pan American since January 1, 2012; prior to that, other senior management roles with Pan American since 2007
CHRISTOPHER LEMON Vancouver, B.C. Canada	Chief Legal and Human Resources Officer, General Counsel	Chief Legal and Human Resources Officer since April 2023; General Counsel of Pan American since August 2017
SEAN MCALEER Guatemala City Guatemala	SVP, Strategic Initiatives	SVP, Strategic Initiatives since April 2023; prior to that, SVP and Managing Director, Guatemala since September 2019; previously other senior management roles with Pan American since February 2010
CAMERON PATERSON North Vancouver, B.C. Canada	SVP, Finance and IT	SVP, Finance and IT since January 2022; prior to that, other senior management roles with Pan American since 2014
MARTIN WAFFORN Vancouver, B.C. Canada	SVP, Technical Services & Process Optimization	SVP, Technical Services & Process Optimization since May 2017; prior to that, other senior management roles with Pan American since 2004

Notes:

- 1 Member of the Audit Committee.
- 2 Member of the Human Resources and Compensation Committee.
- 3 Member of the Nominating and Governance Committee.
- 4 Member of the Health, Safety and Environment Committee.
- 5 Member of Communities and Sustainable Development Committee.

The directors of Pan American are elected at each annual general meeting to hold office until the next annual general meeting or until their successors are elected or appointed. As at December 31, 2023, the Board of Directors consisted of eleven directors, ten of whom, John Begeman, Alexander Davidson, Neil de Gelder, Chantal Gosselin, Charles Jeannes, Kimberly Keating, Jennifer Maki, Walter Segsworth, Kathleen Sendall, and Gillian Winckler, qualify as unrelated directors who are independent of management. Mr. Steinmann is not independent due to his current management position with us.

The Board of Directors has established five committees: the Audit Committee, the Human Resources and Compensation Committee, the Health, Safety, and Environment Committee, the Communities and Sustainable Development Committee, and the Nominating and Governance Committee. Detailed information regarding the duties and obligations of the Audit Committee is annexed as Appendix "A" to this AIF. The Board of Directors does not have an Executive Committee. The composition of the various committees as at December 31, 2023, is set forth in the preceding table.

As of the close of business on March 25, 2024, the directors and executive officers of Pan American named above as a group exercised control or direction or beneficially owned, directly or indirectly, 615,560 Common Shares, or approximately 0.17% of the issued and outstanding Common Shares of Pan American.

From May 2010 to April 2018, Ms. Sendall was a board member of CGG SA, a French company listed at the time on the NYSE and Euronext Paris. On June 15, 2017, following the execution of legally binding agreements in support of the terms of the agreement-in-principle with its key financial creditors, CGG SA began legal processes to implement a comprehensive pre-arranged restructuring, with the opening of a Safeguard proceeding in France and Chapter 11 and Chapter 15 filings in the U.S. The restructuring plan was approved by both the Paris Commercial Court and the New York Bankruptcy Court. The implementation of the financial restructuring plan was finalized in February 2018.

Other than the above, none of Pan American's directors or executive officers:

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

- (i) was subject to cease trade order, an order similar to a cease trade order, or an order that denied the relevant company access to any exemption under securities legislation (collectively, an "Order") that was issued while the director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer; or
  - (ii) was subject to an Order that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer;
- (b) are, as at the date of this AIF, or has been within 10 years before the date of this AIF, a director or executive officer of any company (including Pan American) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or
  - (c) have, within the 10 years before the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director or executive officer.

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

- (a) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or
- (b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable shareholder in making an investment decision.

As of the date of this AIF, Pan American is not aware of any shareholder holding a sufficient number of securities of Pan American to affect materially the control of Pan American.

## **Audit Committee**

As at December 31, 2023, the members of the Audit Committee were Jennifer Maki (Chair), Neil de Gelder, Chantal Gosselin and Kimberly Keating. The Board of Directors has determined based on the information provided by each director that all members of the Audit Committee meet the independence requirements set out in National Instrument 52-110 – *Audit Committees*, and as defined under Rule 10A-3 of the Securities Exchange Act of 1934 (United States), as amended, and the rules and regulations of the Nasdaq. All members of the Audit Committee are financially literate and Jennifer Maki, an individual serving on the audit committee of the Board of Directors, is an audit committee financial expert, as that term is defined in General Instruction B(8)(b) of Form 40-F.

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

### ***Relevant Education and Experience of Audit Committee Members***

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

**Jennifer Maki** is an accomplished mining executive and finance expert with strong leadership experience in public mining companies operating in complex international jurisdictions. She is the former Executive Director of Vale Base Metals and CEO of Vale Canada, and previously served as EVP and CFO of Vale Base Metals. Ms. Maki began her professional career in the mining group with PricewaterhouseCoopers. She is presently a Director and Chair of the Audit Committees at two other publicly listed companies. Ms. Maki is a CPA, Chartered Accountant, has a Bachelor of Commerce degree from Queen's University and holds the ICD.D designation from the Institute of Corporate Directors.

**Neil de Gelder, K.C.**, has over 25 years of experience as a lawyer specializing in corporate, mergers and acquisitions, and financing matters with a major Canadian law firm, frequently advising boards of publicly traded companies. He is a former Executive Director of the British Columbia Securities Commission and is currently Vice-Chair of a private diversified investment firm based in Vancouver as well as being an independent director of, and Chair of the Audit Committee for, another publicly listed company. He is routinely involved in reviewing internal management financial reporting and external audited and unaudited financial statements. Mr. de Gelder has served on a wide variety of corporate, Crown, charitable, and community boards over the years, including serving on the audit committee of a B.C. venture capital fund.



**Chantal Gosselin** is an experienced corporate board member with 30 years of combined hands-on mining operations and capital markets knowledge. Early in her career, Ms. Gosselin held mine-site leadership positions in Canada, Peru and Nicaragua, giving her firsthand experience in underground and open pit developing and operating mines in diverse cultural and social environments. Upon completing an MBA, she became more involved on the financial side and held various financial analyst and portfolio manager positions, including Vice President and Portfolio Manager at Goodman Investment Counsel and Senior Mining Analyst at Sun Valley Gold LLP. As a corporate board member, Ms. Gosselin was involved in numerous corporate mergers and acquisitions and has been a member of a number of audit committees.

**Kimberly Keating** is a Professional Engineer with 25 years of broad international experience in the oil and gas, mining, hydropower, and nuclear sectors. Most recently, Kim was the COO of the Cahill Group, one of Canada's largest multi-disciplinary construction companies with operations across the country. Prior to joining the Cahill Group in 2013, Kim held a variety of progressive leadership roles from engineering design through to construction, commissioning, production operations, and offshore field development. She is currently Board Chair of Major Drilling International Inc. and Drax Group plc. Kim is also a founding member of Makwa-Cahill Limited Partnership, a nuclear qualified Indigenous fabrication company. Ms. Keating graduated from the Rotman-Institute of Corporate Directors Education Program and was awarded her ICD.D designation. Ms. Keating has been a member on a number of other public company audit committees.

### ***External Auditor Service Fees***

#### Audit Fees

The aggregate fees billed by Deloitte LLP, Pan American's independent external auditor, for the fiscal years ended December 31, 2023, and 2022 for the audit of Pan American's annual consolidated financial statements, interim reviews, and securities filings where services are required to be provided by the auditor for such years were approximately \$5,258,700 and \$2,828,000, respectively. The Audit Fees in 2023 increased compared to 2022 as a result of the acquisition of Yamana and the associated significant increase in the operations of the Company as a result, including the audit of business combination accounting at acquisition and the audit of the acquired Yamana operations from the date of acquisition to December 31, 2023. Additionally, the audit fees include amounts of approximately \$444,500 related to the finalization of the audit of Yamana for the year ended December 31, 2022, which were invoiced subsequent to the acquisition of Yamana by the Company.

#### Audit-Related Fees

The aggregate fees billed by Deloitte LLP for the fiscal years ended December 31, 2023 and 2022 for assurance and related services that are reasonably related to the performance of the audit or review of Pan American's consolidated financial statements, including fees for audit services not required to support the auditor's opinion on Pan American's consolidated financial statements, were approximately \$462,600 and \$287,300, respectively. Audit-Related Fees in both 2022 and 2023 are comprised of assurance related services, including some statutory audits, that are not directly related to the annual audit and interim reviews of the Company's consolidated financial statements and also include amounts with respect to the Pan American's and Yamana's Canadian Public Accountability Board fees that are remitted by Deloitte on behalf of the Company.

#### Tax Fees

The aggregate fees billed by Deloitte LLP for the fiscal years ended December 31, 2023, and 2022 for professional services relating to tax compliance, tax advice, tax planning, and other services were approximately \$3,300 and \$1,900, respectively.

#### Other Fees

The aggregate fees billed by Deloitte LLP for the fiscal years ended December 31, 2023, and 2022 for products and services provided by Deloitte LLP, other than those services reported in the preceding three paragraphs, were \$0 and \$0, respectively.

#### Audit Committee Pre-Approval Policies

All audit and non-audit services performed by our external auditor are pre-approved by the Audit Committee.

## CONFLICTS OF INTEREST

---

To the best of our knowledge, and other than as disclosed in this AIF, there are no known existing or potential conflicts of interest between Pan American and any of our directors or officers, except that certain officers and directors of Pan American are officers and directors of, or are associated with, other public or private companies. Such associations may give rise to conflicts of interest from time to time between their duties as an officer or director of Pan American and their duties as an officer or director or such other companies. The directors are aware of laws requiring them to act honestly and in good faith with a view to act in the best interests of Pan American and our shareholders and to disclose any conflicts of interest.

## LEGAL PROCEEDINGS AND REGULATORY ACTIONS

---

A description of certain legal proceedings to which we are a party appear under the heading “Contingencies” in Note 32 to our Audited Consolidated Financial Statements for the year ended December 31, 2023, which are available under Pan American’s SEDAR+ profile at [www.sedarplus.ca](http://www.sedarplus.ca). We have not been subject to any regulatory penalties or sanctions during the financial year, nor entered into any settlement agreements relating to securities legislation.

## INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

---

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

## TRANSFER AGENTS AND REGISTRAR

---

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

## SECURITIES SUBJECT TO CONTRACTUAL RESTRICTION ON TRANSFER

---

As of December 31, 2023, to the knowledge of Pan American, the following table provides details with respect to all securities of Pan American that were subject to a contractual restriction on transfer. No securities of Pan American are subject to escrow.

Designation of Class	Number of Securities <sup>(1)</sup>	Percentage of Class	Restriction End Date
Common Shares	123,431	0.03%	December 10, 2024
Common Shares	129,023	0.03%	December 9, 2025
Common Shares	220,695	0.06%	December 8, 2026

Notes:

- 1 Comprised of compensation shares issued to employees pursuant to Pan American’s Stock Option and Compensation Share Plan and long-term incentive plan. Such Common Shares have been issued subject to a 3-year hold period.

## MATERIAL CONTRACTS

---

Except for contracts entered into in the ordinary course of business, no other material contracts have been entered into by Pan American during the financial year ended December 31, 2023, or before such time which are still in effect.

## INTERESTS OF EXPERTS

---

Deloitte LLP is the auditor of Pan American and is independent of Pan American within the meaning of the Rules of Professional Conduct of the Chartered Professional Accountants of British Columbia and within the meaning of the U.S. Securities Exchange Act of 1933, as amended, and the applicable rules and regulations thereunder adopted by the SEC and the Public Company Accounting Oversight Board (United States).

The Qualified Persons as defined by NI 43-101 who are described under the heading “Scientific and Technical Information” on page 6 are Martin Wafforn, P. Eng., Chris Emerson, FAusIMM, Americo Delgado, P.Eng., Peter Mollison, P.Eng., Camila Passos, P.Geo., Carlos Iturralde, P.Eng., Matthew Andrews, FAusIMM, Sergio Castro, Registered Member CMC, Marco Velásquez Corrales, Registered Member CMC, Henry Marsden, P.Geo. and M3 Engineering & Technology Corporation and are the persons who have prepared or certified a statement, report, or valuation described in this AIF, or have, in some cases, prepared or supervised the preparation of Pan American’s mineral reserve and mineral resource estimates effective June 30, 2023 (and December 18, 2023, in respect of the La Colorada skarn project) included herein or reviewed and approved the scientific and technical information disclosed in this AIF.

To the best of our knowledge, none of Mmes. or Messrs. Wafforn, Emerson, Delgado, Mollison, Iturralde, Andrews, Castro, Velásquez Corrales, Marsden or Passos, or M3 Engineering & Technology Corporation, beneficially owns, directly or indirectly, 1% or more of any class of Pan American’s outstanding securities.

## EXCEPTIONS FROM NYSE CORPORATE GOVERNANCE REQUIREMENTS

---

Section 310.00 of the NYSE Listed Company Manual generally requires that a listed company’s by-laws provide for a quorum for any meeting of the holders of the company’s common shares that is sufficiently high to ensure a representative vote. Pursuant to the NYSE corporate governance rules, Pan American, as a foreign private issuer, has elected to comply with practices that are permitted under Canadian law in lieu of the provisions of Section 310.00. Pan American’s by-laws provide that the minimum quorum for a meeting of holders of Common Shares is two individuals who are shareholders, proxy holders or duly authorized representatives of corporate shareholders personally present and representing shares aggregating not less than 25% of the issued shares of Pan American carrying the right to vote. Pan American’s quorum requirements are not prohibited by the requirements of the *Business Corporations Act* (British Columbia) and Pan American intends to continue to comply with the requirements of the *Business Corporations Act* (British Columbia). The rules of the Toronto Stock Exchange, upon which the Common Shares are also listed, do not contain specific quorum requirements.

Except as stated above, Pan American is in compliance with the rules generally applicable to U.S. domestic companies listed on the NYSE. Pan American may in the future decide to use other foreign private issuer exemptions with respect to some of the other NYSE listing requirements. Following home country governance practices, as opposed to the requirements that would otherwise apply to a company listed on the NYSE, may provide less protection than is accorded to investors under the NYSE listing requirements applicable to U.S. domestic issuers.

## ADDITIONAL INFORMATION

---

Additional information, including directors’ and officers’ remuneration and indebtedness, principal holders of Pan American’s securities, and securities authorized for issuance under equity compensation plans, is contained in our management information circular for the most recent annual meeting of shareholders. Additional financial information is also provided in our audited consolidated financial statements for the years ended December 31, 2023 and 2022, and the 2023 MD&A. The foregoing disclosure documents, along with additional information relating to Pan American, may be found on SEDAR+ at [www.sedarplus.ca](http://www.sedarplus.ca), on the SEC website at [www.sec.gov](http://www.sec.gov), or on our website at [www.panamericansilver.com](http://www.panamericansilver.com).

## GLOSSARY OF TERMS

---

*“mineral resource”* - A mineral resource is a concentration or occurrence of solid material of economic interest in or on the earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a mineral resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

*“inferred mineral resource”* – An inferred mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An inferred mineral resource has a lower level of confidence than that applying to an indicated mineral resource and must not be converted to a mineral reserve. It is reasonably expected that the majority of inferred mineral resources could be upgraded to indicated mineral resources with continued exploration.

*“indicated mineral resource”* – An indicated mineral resource is that part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An indicated mineral resource has a lower level of confidence than that applying to a measured mineral resource and may only be converted to a probable mineral reserve.

*“measured mineral resource”* – A measured mineral resource is that part of a mineral resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of modifying factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A measured mineral resource has a higher level of confidence than that applying to either an indicated mineral resource or an inferred mineral resource. It may be converted to a proven mineral reserve or to a probable mineral reserve.

*“mineral reserve”* – A mineral reserve is the economically mineable part of a measured and/or indicated mineral resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at pre-feasibility or feasibility level as appropriate that include application of modifying factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The reference point at which mineral reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported. The public disclosure of a mineral reserve must be demonstrated by a pre-feasibility study or feasibility study.

*“probable mineral reserve”* - A probable mineral reserve is the economically mineable part of an indicated, and in some circumstances, a measured mineral resource. The confidence in the modifying factors applying to a probable mineral reserve is lower than that applying to a proven mineral reserve.

*“proven mineral reserve”* - A proven mineral reserve is the economically mineable part of a measured mineral resource. A proven mineral reserve implies a high degree of confidence in the modifying factors.



## APPENDIX “A”

# AUDIT COMMITTEE CHARTER

### PURPOSE

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

- a. the quality and integrity of the Company’s financial and accounting reporting processes and internal accounting and financial control systems;
- b. the external auditor’s qualifications and independence;
- c. management’s responsibility for assessing the effectiveness of internal controls; and
- d. the Company’s compliance with legal and regulatory requirements in connection with financial and accounting matters.

### COMPOSITION AND OPERATION

The Committee shall be composed of at least three directors, all of whom shall be independent<sup>1</sup>. All members of the Committee shall, to the satisfaction of the Board, be Financially Literate and at least one member will be a Committee Financial Expert (“**Financially Literate**” and “**Committee Financial Expert**” are defined in the Definitions section of this Charter).

The members of the Committee shall be appointed by the Board annually, and the Board may at any time remove or replace any member of the Committee and may fill any vacancy with another Board member, as required. No member of the Committee may serve on the audit committees of more than three public companies (including the Committee), unless expressly permitted by the Board.

The Board shall appoint a chair (the “**Chair**”) from among the Committee members. If the Chair is not present at any meeting of the Committee, one of the other Committee members present at the meeting shall be chosen to preside as chairperson at the meeting.

A quorum at meetings of the Committee shall be a majority of members present in person or by telephone or other telecommunication device that permits all persons participating in the meeting to speak and hear one another.

The Committee will make every effort to meet at least four times per year and shall conduct such additional meetings as required from time to time. Each member is entitled to request that an additional meeting be called. The external auditor may also request that the Chair call a meeting of the Committee to consider any matter that the auditor believes should be brought to the attention of the directors or the shareholders of the Company.

The Committee shall fix its own procedures for meetings, keep records of its proceedings and report to the Board routinely at the next regularly scheduled Board meeting. Copies of meeting records will be made available to the external auditor as requested.

In camera sessions will be scheduled for each Committee meeting.

---

<sup>1</sup> A director’s “independence” shall be determined in accordance with the securities laws, rules, regulations and guidelines of all applicable securities regulatory authorities, including without limitation the securities commissions in each of the provinces and territories of Canada and the U.S. Securities and Exchange Commission, and the stock exchanges on which the Company’s securities are listed, including without limitation the Toronto Stock Exchange and the New York Stock Exchange (collectively, “Securities Laws”).



The Committee may act by unanimous written consent of its members. A resolution approved in writing by members of the Committee shall be valid and effective as if it had been passed at a duly called meeting.

## RESPONSIBILITIES AND DUTIES

### Overall Committee:

To fulfill its responsibilities and duties the Committee will:

- a. oversee the relationship and maintain a direct line of communication with the Company's internal and external auditors and assess their respective performance;
- b. assist the Board in the discharge of its responsibilities relating to the quality, acceptability and integrity of the Company's accounting policies and principles, reporting practices and internal controls;
- c. review and recommend to the Board for approval the audited annual financial statements, with the report of the external auditor, and corresponding management's discussion and analysis prior to public dissemination and filing with securities regulatory authorities;
- d. review and approve, or recommend to the Board for approval, the quarterly financial statements of the Company and corresponding management's discussion and analysis prior to public dissemination and filing with securities regulatory authorities;
- e. review any other disclosure documents that contain material financial information about the Company requiring approval by the Board prior to public dissemination and filing with securities regulatory authorities, including, but not limited to, financial information in earnings press releases, annual reports, Form 40-F, annual information forms, information circulars, and prospectuses;
- f. review with management any tax matters that could have a material effect on the Company's financial statements;
- g. review and approve the Company's financial risk management programs, including any significant commodity, currency or interest rate hedging programs, or if deemed appropriate by the Committee, make recommendations to the Board with respect to such programs;
- h. review proposed major financing activities of the Company and make recommendations to the Board with respect to the same;
- i. assess policies and procedures for cash management and review investment strategies for the Company's cash balances;
- j. review the Company's cash flow projections and liquidity forecasts; and
- k. review this Charter periodically, but at least once per annum, and recommend to the Board any necessary amendments.

### Public Filings, Policies and Procedures:

The Committee will:

- a. satisfy itself that adequate procedures are in place for the review of the Company's disclosure of financial information extracted or derived from the Company's financial statements, other than the Company's financial statements, management's discussion and analysis, and earnings press releases, and periodically assess such disclosure controls and procedures, and management's evaluation thereof, to ensure that financial information is recorded, processed, summarized and reported within the time periods required by law;
- b. review disclosures made to the Committee by the Chief Executive Officer and the Chief Financial Officer during their certification process for any significant deficiencies in the design or operation of internal controls or material weaknesses therein and any fraud involving management or other employees who have a significant role in internal controls;



- c. review with management and the external auditor any correspondence with securities regulators or other regulatory or government agencies which raise material issues regarding the Company's financial reporting or accounting policies; and
- d. review with management, the external auditors and the Company's legal counsel, any claim or other contingency, including tax assessments, that could have a material effect upon the financial position or operating results of the Company and the manner in which these matters have been disclosed in the financial statements.

### External Auditors

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

- a. consider and make recommendations to the Board with respect to the external auditor to be nominated for appointment, re-appointment, or removal by shareholders at each annual general meeting of the Company;
- b. make recommendations to the Board with respect to the compensation of the external auditor, assess whether fees and any other compensation to be paid to the external auditor for audit or non-audit services are appropriate to enable an audit to be conducted and to maintain the independence of the external auditor;
- c. review the performance of the external auditor and, where appropriate, recommend to the Board appropriate action with respect to the external auditor;
- d. confirm the independence and effectiveness of the external auditor, which will require receipt from the external auditor of a formal written statement delineating all relationships between the auditor and the Company and any other factors that might affect the independence of the auditor;
- e. actively engage in dialogue with the external auditor with respect to any disclosed relationships or services that may affect the independence and objectivity of the external auditor and take, or recommend that the Board take, appropriate actions to oversee the independence of the external auditor;
- f. oversee the work of the external auditor engaged for the purpose of preparing or issuing an auditor's report or performing other audit, review or attest services for the Company, including the resolution of disagreements between management and the external auditor regarding financial reporting, including, review and, as applicable, approval of the following:
  - i. the external auditor's engagement letter and audit plans;
  - ii. the form and content of the quarterly and annual audit report, which should include, *inter alia*:
    - a summary of the Company's internal controls findings resulting from the annual audit procedures;
    - any material issues raised in the most recent meeting of the Committee; and
    - any other related audit, review or attestation services performed for the Company by the external auditors;
  - iii. form and content of other reports of the auditors;

and the Committee shall report to the Board, as necessary, in respect of the above noted matters;

- g. review and pre-approve all non-audit services provided to the Company or its subsidiaries by the external auditor prior to the commencement of such services, and in doing so, the Committee may delegate to one or more independent members of the Committee the authority to pre-approve any such non-audit services, provided that the decision of such member(s) on such non-audit services will be presented to the Committee at its next regularly scheduled meeting, and in all cases, pre-approval of non-audit services must satisfy the requirements set out in *National Instrument 52-110 – Audit Committees*;
- h. monitor the relationship between management and the external auditor and resolve any disagreements between them regarding financial reporting;



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

### **Internal Controls and Financial Reporting**

The Committee will:

- a. obtain reasonable assurance from discussions with (and/or reports from) management, and reports from external and internal auditors that the Company's financial and accounting systems are reliable and that the internal controls are operating effectively;
- b. in consultation with the external auditor, the CEO, the CFO, and where necessary, other members of management, review the integrity of the Company's financial reporting process and the internal control structure;
- c. review the acceptability of the Company's accounting principles and identify areas of concern and, where appropriate to do so, discuss with the external auditor;
- d. request the auditors to undertake special examinations (e.g., review compliance with conflict of interest policies) when it deems necessary;
- e. together with management, review control weaknesses identified by the external and internal auditors;
- f. consider proposed appointees for the position of chief financial officer and, if deemed appropriate by the Committee, other key financial executives involved in financial reporting;
- g. satisfy itself that CEO and CFO certifications pursuant to Securities Laws are prepared and filed and make inquiries and initiate discussion as necessary with management regarding the practices and procedures adopted to permit management's assurance on the underlying controls; and
- h. during the annual audit process, consider if any significant matters regarding the Company's internal controls and procedures over financial reporting, including any significant deficiencies or material weaknesses in their design or operation, need to be discussed with the external auditor, and review whether internal control recommendations made by the auditor have been implemented by management.

### **Internal Audit**

The Committee shall be responsible for reviewing:

- a. activities, organization structure, and qualifications of the internal audit function;
- b. the resources, budget, reporting relationships and planned activities of the internal audit function;
- c. internal audit findings and the implementation of any accepted recommendations;
- d. the internal audit procedures and recommending changes, if any; and
- e. the adequacy of the line of communication between internal audit and the Committee, ensuring that it is maintained.





## Ethical and Legal Compliance and Risk Management

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

- a. satisfy itself as to the integrity of the CEO and other senior management and that the CEO and other senior management strive to create a culture of integrity throughout the Company;
- b. review the adequacy, appropriateness and effectiveness of the Company's policies and business practices which impact on the financial integrity of the Company, including those relating to hedging, insurance, accounting, information security and systems, cash management and investment strategies, related-party transactions, financial controls and management reporting;
- c. receive a report from management on tax issues and planning, including compliance with the Company's source deduction obligations and other remittances under applicable tax or other legislation;
- d. receive a report on the annual policy attestation process for the Company's Global Code of Ethical Conduct, Global Anti-Corruption Policy, Gifts and Hospitality Guidelines, and any other relevant policies and guidelines (collectively, the "**Policies**");
- e. review annually the adequacy and quality of the Company's financial and accounting staffing, including the need for and scope of internal audit reviews (if any);
- f. receive reports from management and other Board committees, as and when appropriate, on the identification, assessment and management of risks;
- g. in conjunction with any other committee designated by the Board from time to time, review major financial, audit and accounting related risks, including information security and cyber risks, and the policies, guidelines and mechanisms that management has put in place to govern the process of monitoring, controlling and reporting such risks;
- h. oversee the establishment of procedures for:
  - i. the receipt, retention and treatment of complaints received by the Company regarding accounting, internal controls, or auditing matters; and
  - ii. the confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting or auditing matters.
- i. review any material complaints and concerns received regarding accounting, internal controls, or auditing matters or with respect to the Policies, and the investigation and resolution thereof, and, where appropriate to do so, provide all relevant information relating to such complaints and concerns to the Nominating and Governance Committee, taking into account the complainants' confidentiality concerns and the roles and responsibilities of each Committee;
- j. review and approve the Company's hiring policies regarding partners, employees and former partners and employees of the present and former external auditor;
- k. review and monitor the Company's compliance with applicable legal and regulatory requirements related to financial reporting and disclosure;
- l. review all related-party transactions; and
- m. review reports from management, internal and external auditors with respect to the Company's compliance with the laws and regulations having a material impact on financial reporting and disclosure.



## AUTHORITY

The Committee shall have the authority to:

- a. at the Company's expense, engage independent counsel and other advisors as it determines necessary to carry out its duties;
- b. set and pay the compensation for any advisors engaged by the Committee; and
- c. communicate directly with any such advisors and with the internal and external auditors.

The Committee shall have unrestricted access to all records, facilities, and personnel of the Company necessary to carry out its responsibilities and may meet separately with head of internal audit, the Chief Executive Officer, the Chief Financial Officer, the General Counsel and such other members of management as they may deem necessary.

The Committee shall be provided with the resources necessary to carry out its responsibilities.

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

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

## DEFINITIONS

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

**"Financially Literate"** shall have the meaning as defined by Securities Laws, which includes, without limitation, the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by the Company's financial statements.

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

- a. an understanding of generally accepted accounting principles and financial statements;
- b. the ability to assess the general application of such principles in connection with the accounting for estimates, accruals and reserves;
- c. experience preparing, auditing, analyzing or evaluating financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and level of complexity of issues that can reasonably be expected to be raised in the Company's financial statements, or experience actively supervising one or more persons engaged in such activities;
- d. an understanding of internal controls and procedures for financial reporting; and
- e. an understanding of audit committee functions; acquired through any one or more of the following:
  - i. education and experience as a principal financial officer, principal accounting officer, controller, public accountant or auditor or experience in one or more positions that involve the performance of similar functions;
  - ii. experience actively supervising a principal financial officer, principal accounting officer, controller, public accountant, auditor or person performing similar functions; or
  - iii. experience overseeing or assessing the performance of companies or public accountants with respect to the preparation, auditing or evaluation of financial statements; or other relevant experience.