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Investing in our common shares involves a high degree of risk. An investment in our securities is speculative and involves a high degree of risk due to the nature of our business and the present stage of exploration and development of our mineral properties. You should carefully consider the risks described below, as well as the other information in this Annual Report, including our consolidated financial statements and the related notes and Part II, Item 7. entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations," and in any documents incorporated in this Annual Report by reference, before deciding whether to invest in our common shares. The occurrence of any of the events or developments described below could harm our business, financial condition, results of operations, and growth prospects and could cause them to differ materially from the estimates described in forward-looking statements in this Annual Report. In such an event, the market price of our common shares could decline, and you may lose all or part of your investment. Although we have discussed all known material risks, the risks described below are not the only ones that we may face. Additional risks and uncertainties not currently known to us or that we currently deem immaterial may also impair our business operations. Certain statements below are forward-looking statements. See also " Cautionary Note Regarding Forward- Looking Statements " in this Annual Report. Risks Related to Our Business Our ability to continue the exploration, permitting, development, and construction of the Project, and to continue as a going concern, will depend in part on our ability to obtain suitable financing. We have limited financial resources. We will need external financing to develop and construct the Project and to complete the permitting process. Although the Company' s current capital resources and liquidity include up to \$ 24. 8 million in funding awarded in December 2022 under the TIA pursuant to Title III of the DPA and an additional \$ 34. 6 million conditionally awarded in February 2024, such funding is available only for the specified costs related to permitting, early restoration activities and advancing construction readiness and is not available to fund the Company's costs pursuant to its ASAOC obligations and certain corporate expenses. The Company's latest liquidity forecast indicates that available cash resources are expected to be exhausted in the fourth quarter of 2024. We expect to incur other costs in the foreseeable future that are not eligible for DPA funding reimbursement and may incur unanticipated increases to costs under our ASAOC obligations as a result of inflation, fuel or labor costs or other factors. The Company continues to explore various funding opportunities, which may include the issuance of additional equity, new debt, or project specific debt; government funding; and / or other financing opportunities. Although the Company entered into the Sales Agreement with respect to an ATM Offering, sales under the program are subject to certain conditions, including market conditions, and there is no assurance that the Company will be able to raise funds under the program, at acceptable share prices or at all. If additional financing is not secured before the fourth quarter of 2024, the Company would no longer be able to meet its ongoing obligations or progress critical permitting efforts. Our funding under the TIA is subject to certain conditions, limitations and ongoing obligations. If we fail to satisfy these conditions, we may be unable to obtain all of the funding allocated to Perpetua Resources or may be required to disgorge such funds. In December 2022, Perpetua Resources was awarded an undefinitized TIA of up to \$24.8 million under Title III of the DPA. On July 25, 2023, the TIA was definitized with the DOD, establishing the full not- to- exceed amount of \$ 24.8 million. The TIA contains customary terms and conditions for technology investment agreements, including ongoing reporting obligations. If we fail to satisfy these conditions, we will be unable to obtain remaining funds available under the TIA and, under certain circumstances, could be required to disgorge funds already paid. On February 12, 2024, the Corporation announced a conditional award of up to \$ 34. 6 million in additional funding under the TIA. Full funding of the additional award is conditioned on modifying the existing TIA to expand the in- scope work for advancing permits and construction readiness and to extend the outside date to June 30, 2025. The amendment will not change any other material terms of the definitized TIA. The modification is anticipated to be completed in the first quarter of 2024, however, there is no assurance that the Corporation will be able to finalize the amendment on the expected timeline or at all. Under the funding agreement, Perpetua Resources may request reimbursement for certain costs incurred related to environmental baseline data monitoring, environmental and technical studies and other activities related to advancing Perpetua's construction readiness and permitting process for the Stibnite Gold Project until December 31, 2024. The funds may be used only for the purposes specified in the TIA and are not available to the Corporation for general corporate purposes other than those specified. Furthermore, the TIA contains limitations on the Corporation' s ability to share or sell certain assets, interests or technology to foreign counterparties, which may limit the Corporation' s ability to raise funding from foreign sources or capitalize on business opportunities with foreign companies. We do not currently have sufficient funds or committed financing necessary to commence construction of the Project, and we may be unable to raise the necessary funds. Based on the updated schedule published by the USFS in January 2024, the Company anticipates that the USFS will publish a FEIS and a DROD in the second quarter of 2024 and a Final ROD in the fourth quarter of 2024. We have commenced pre- construction engineering and other preparations and, if the DROD and ROD are received on the anticipated schedule, we would seek to commence construction in 2025. According to the TRS, as of December 31, 2020, the total initial capital cost estimate for the Project was approximately \$ 1, 263 million. Although we have not updated our capital cost estimates as of December 31, 2023, based on significant inflation and increased financing costs since 2020, we expect the actual cost estimates to be higher than the 2020 estimate. These cost estimates may change materially due to inflation, competition or other unforeseen challenges at the Project site. We do

not currently have sufficient funds or committed financing to commence construction of the Project. Our ability to obtain sufficient funds or committed financing may be impacted by various factors, including, but not limited to, our ability to raise additional funds at acceptable rates or at all; unfavorable interest rates; the incurrence of additional debt, which may be subject to certain restrictive covenants; restrictions on our use of government funding (see Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Department of Defense Funding); dilution resulting from additional equity financing (see Item 1A. Risk Factors – Global financial markets can have a profound impact on the global economy in general and on the mining industry in particular); our ability to control certain property as a result of our entry into joint ventures or other similar arrangements; and the loss of certain economic benefits of our property as a result of our entry into royalty agreements. Our failure to obtain sufficient financing could result in the delay or indefinite postponement of exploration, permitting, development, construction, or production at the Project. The cost and terms of such financing may significantly reduce the expected benefits from development of the Project and / or render such development uneconomic. There can be no assurance that additional capital or other types of financing will be available when needed or that, if available, the terms of such financing will be favorable. Our failure to obtain financing could have a material adverse effect on our growth strategy and results of operations and financial condition. Perpetua Resources does not have a full staff of technical people and relies upon outside consultants to provide critical services. Perpetua Resources has a relatively small staff and depends upon its ability to hire consultants with the appropriate background and expertise. Perpetua Resources' inability to hire the appropriate consultants at the appropriate time could adversely impact Perpetua Resources' ability to advance its exploration and permitting activities. For example, Perpetua Resources will need to hire additional staff and consultants in order to commence construction of the Project. See section Item 1A, Risk Factors- Perpetua Resources faces substantial competition within the mining industry from other mineral companies with much greater financial and technical resources and Perpetua Resources may not be able to effectively compete. We have no history of commercially producing precious metals from our mineral properties and there can be no assurance that we will successfully establish mining operations or profitably produce precious metals. The Project is not in production or currently under construction, and we have no ongoing mining operations or revenue from mining operations. Mineral exploration and development has a high degree of risk and few properties that are explored are ultimately developed into producing mines. The future development of the Project will require obtaining federal and state permits and financing and the construction and operation of mines, processing plants and related infrastructure. As a result, we are subject to all of the risks associated with establishing new mining operations and business enterprises, including, among others: • The need to obtain necessary environmental and other governmental approvals and permits, and the timing and conditions of those approvals and permits; • The potential that future exploration and development of mineral claims on or near the Project site may be impacted by litigation and / or consent decrees entered into by previous owners of mineral rights; • The availability and cost of funds to finance construction and development activities; • The timing and cost, which can be considerable, of the construction of mining and processing facilities as well as other related infrastructure; • Potential opposition from Native American tribes, non- governmental organizations, environmental groups or local groups which may delay or prevent development activities; • Potential increases in construction and operating costs due to changes in the cost of labor, fuel, power, materials and supplies, services, and foreign exchange rates; **12** • The availability and cost of skilled labor and mining equipment; and • The availability and cost of appropriate smelting and / or refining arrangements. The costs, timing and complexities of mine construction and development are increased by the remote location of the Project, with additional challenges related thereto, including access, water and power supply, and other support infrastructure. Cost estimates may increase significantly as more detailed engineering work and studies are completed. New mining operations commonly experience unexpected costs, problems and delays during development, construction, and mine start- up. In addition, delays in the commencement of mineral production often occur. Accordingly, there are no assurances that our activities will result in profitable mining operations, that we will successfully establish mining operations, or that we will profitably produce precious metals at the Project. In addition, there is no assurance that our mineral exploration activities will result in any discoveries of new ore bodies. If further mineralization is discovered there is also no assurance that the mineralized material would be economical for commercial production. Discovery of mineral deposits is dependent upon a number of factors and significantly influenced by the technical skill of the exploration personnel involved. The commercial viability of a mineral deposit is also dependent upon a number of factors which are beyond our control, including the attributes of the deposit, commodity prices, government policies and regulation, and environmental protection requirements. Perpetua Resources' future exploration and development efforts may be unsuccessful. Mineral resource exploration and, if warranted, development, is a speculative business, characterized by a number of significant risks, including, among other things, unprofitable efforts resulting not only from the failure to discover mineral deposits but also from finding mineral deposits, which, though present, are insufficient in volume and / or grade to return a profit from production. There is no certainty that the expenditures that have been made and may be made in the future by the Corporation related to the exploration of its properties will result in discoveries of mineralized material in commercially viable quantities. Most exploration projects do not result in the discovery of commercially viable mineral deposits and no assurance can be given that any particular level of recovery or Mineral Reserves will in fact be realized or that any identified mineral deposit will ever qualify as a commercially viable deposit which can be legally and economically exploited. 11Perpetua -- Perpetua Resources' mineral resource and mineral reserve estimates may not be indicative of the actual gold that can be mined. Assay results from core drilling or reverse circulation drilling can be subject to errors at the laboratory analyzing the drill samples. In addition, reverse circulation or core drilling may lead to samples which may not be representative of the gold or other metals in the entire deposit. Mineral resource and mineral reserve estimates are based on interpretation of available facts and extrapolation or interpolation of data and may not be representative of the actual deposit. In the context of mineral exploration and future development, there is inherent variability between duplicate samples

taken adjacent to each other and between sampling points that cannot be reasonably eliminated. There may also be unknown geologic details that have not been identified or correctly appreciated at the current level of delineation in these types of investigations. This results in uncertainties that cannot be reasonably eliminated from the estimation process. Some of the resulting variances can have a positive effect and others can have a negative effect on mining and processing operations. The calculations of amounts of mineralized material within Mineral Resources and Mineral Reserves are estimates only. Actual recoveries of gold and other potential by- products from Mineral Resources and Mineral Reserves may be lower than those indicated by test work. Any material change in the quantity of mineralization, grade, tonnage or stripping ratio, or the price of gold and other potential by- products, may affect the economic viability of a mineral property. In addition, there can be no assurance that the recoveries of gold and other potential by- products in small- scale laboratory tests will be duplicated in larger scale pilot plant tests under on- site conditions or during production. Notwithstanding the results of any metallurgical testing or pilot plant tests for metallurgy and other factors, there remains the possibility that the ore may not react in commercial production in the same manner as it did in testing. Mining and metallurgy are an inexact science and, accordingly, there always remains an element of risk that a mine may not prove to be commercially viable. Until a deposit is actually mined and processed, the quantity of Mineral Reserves, Mineral Resources and grades must be considered as estimates only. In addition, the determination and valuation of Mineral Reserves and Mineral Resources is based on, among other things, assumed metal prices. Market fluctuations and metal prices may render Mineral Resources and Mineral Reserves uneconomic. Any material change in quantity of Mineral Reserves, Mineral Resources, grade, tonnage, percent extraction of those mineral reserves recoverable by underground mining techniques or stripping ratio for those Mineral Reserves recoverable by open pit mining techniques may affect the economic viability of a mining project, including the Project and any future operations in which the Corporation has a direct or indirect interest. Any or all of these factors may lead to mineral resource and / or mineral-13mineral reserve estimates being overstated, the mineable gold that can be received from the Project being less than the mineral resource and mineral reserve estimates, and the Project not being a viable project. If the Corporation's mineral resource and mineral reserve estimates for the Project are not indicative of actual grades of gold and other potential by- products, Perpetua Resources will have to continue to explore for a viable deposit or cease operations. Perpetua Resources faces numerous uncertainties in estimating economically recoverable mineral reserves and mineral resources, and inaccuracies in estimates could result in lower than expected revenues, higher than expected costs and decreased profitability. Information concerning our mining properties in Item 2, Properties has been prepared in accordance with the requirements of S-K 1300. A mineral is economically recoverable when the price at which it can be sold exceeds the costs and expenses of mining, processing and selling the mineral. Mineral reserve and mineral resource estimates of the gold, silver and antimony in our mining properties are based on many factors, including engineering, economic and geological data assembled and analyzed by internal staff and third parties, which includes various engineers and geologists, the area and volume covered by mining rights, assumptions regarding extraction rates and duration of mining operations, and the quality of in- place mineral reserves and mineral resources. The mineral reserve and mineral resource estimates as to both quantity and quality are updated from time to time to reflect, among other matters, new data received . According to the TRS, as of December 31, 2020, the total initial capital cost estimate for the Project was approximately \$ 1, 263 million. The Corporation has not updated its capital cost estimates as of December 31, 2023, however, based on significant inflation and increased financing costs since 2020, the Corporation expects the actual cost estimates to be higher than the 2020 estimate. These cost estimates may change materially due to inflation, competition or other unforeseen challenges at the Project site. There are numerous uncertainties inherent in estimating quantities and qualities of minerals and costs to mine recoverable mineral reserves and mineral resources, including many factors beyond the Corporation's control. Estimates of mineral reserves and mineral resources necessarily depend upon a number of variable factors and assumptions, any one of which may, if incorrect, result in an estimate that varies considerably from actual results. These factors and assumptions include, among others: • Geologic and mining conditions, including the Corporation' s ability to access certain mineral deposits as a result of the nature of the geologic formations of the deposits or other factors, which may not be fully identified by available exploration data; • Demand for the Corporation's minerals; • Contractual arrangements, operating costs and capital expenditures; • Development and reclamation costs; • Mining technology and processing improvements; 12. • The effects of regulation by governmental agencies and adverse judicial decisions; • The ability to obtain, maintain and renew all required permits; ● Employee health and safety; and ● The Corporation' s ability to convert all or any part of mineral resources to economically extractable mineral reserves. As a result, actual tonnage recovered from identified mining properties and estimated revenues, expenditures and cash flows with respect to mineral reserves and mineral resources may vary materially from estimates. Thus, these estimates may not accurately reflect the Corporation' s actual mineral reserves and mineral resources. Any material inaccuracy in estimates related to the Corporation's mineral reserves or mineral resources could result in lower than expected revenues, higher than expected costs or decreased profitability and changes in future cash flow, which could materially and adversely affect the Corporation' s business, results of operations, financial position and cash flows. Additionally, reserve and resource estimates may be adversely affected in the future by interpretations of, or changes to, the SEC's property disclosure requirements for mining companies. Perpetua Resources has a history of net losses and expects losses to continue for the foreseeable future. We have a history of net losses and we expect to incur net losses for the foreseeable future. The Project has not advanced to the commercial production stage and we have no history of earnings or cash flow from operations. We expect to continue to incur net losses unless and until such time the Project commences commercial production and generates sufficient revenues to fund continuing operations. The development of our mineral properties to achieve production will require the commitment of substantial financial resources. The amount and timing of expenditures will depend on a number of factors, including the progress of ongoing exploration and development, the results of consultants' analyses and recommendations, the rate at which operating losses are incurred, the process 14