UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

X **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2022

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from ___________ to __________

Commission File Number 001-39918

PERPETUA RESOURCES CORP.

(Exact name of Registrant as specified in its Charter)

British Columbia, Canada (State or other jurisdiction of incorporation or organization)	N/A (IRS Employer Identification No.)
405 S. 8th Street, Ste 201 Boise, Idaho (Address of principal executive offices)	83702 (Zip code)

Registrant's telephone number, including area code: (208) 901-3060

Securities registered pursuant to Section 12(b) of the Exchange Act:

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common Shares, without par value	PPTA	Nasdaq

Securities registered pursuant to Section 12(g) of the Act: Common Shares, no par value

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No X

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes ☐ No X

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes X No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes X No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	X	Small reporting company	X
		Emerging growth company	X

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No X

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant, based on the closing price of the shares of common shares on The Nasdaq Stock Market on the last business day of the registrant's most recently completed second fiscal quarter 2022, was $107,320,276.

The registrant had 63,011,777 common shares outstanding as of March 10, 2023.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Definitive Proxy Statement relating to the 2023 Annual Meeting of Shareholders, to be filed within 120 days of the Registrant's fiscal year ended December 31, 2022, are incorporated by reference into Part III of this Annual Report on Form 10-K.

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EXPLANATORY NOTE

Unless the context otherwise indicates, references to the "Company," "Perpetua Resources," "Perpetua," "we," "us," or "our" in this Annual Report refer to Perpetua Resources Corp. and its subsidiaries and the "Corporation" refers only to Perpetua Resources Corp.

See the "Glossary of Technical Terms" for more information regarding some of the terms used in this Annual Report.

CURRENCY AND EXCHANGE RATE INFORMATION

Unless otherwise indicated, references herein to "US$","$" or "dollars" are expressed in U.S. dollars . References in this Annual Report to Canadian dollars are noted as "C$." Our consolidated financial statements that are included in this Annual Report are presented in U.S. dollars, unless otherwise stated.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements contained in this Annual Report are "forward-looking statements" within the meaning of "safe harbor" provisions of the United States Private Securities Litigation Reform Act of 1995 and Section 21E of the Securities Exchange Act of 1934 (the "Exchange Act") and "forward-looking information" within the meaning of applicable Canadian securities laws. All statements, other than statements of historical fact included in this Annual Report, regarding our strategy, future operations, financial position, estimated revenues and losses, projected costs, prospects, plans and objectives of management are forward-looking statements. When used in this Annual Report, the words "anticipate," "believe," "expect," "estimate," "intend," "plan," "project," "outlook," "may," "will," "should," "would," "could," "can," the negatives thereof, variations thereon and other similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain such identifying words. Forward-looking statements are based on certain estimates, beliefs, expectations and assumptions made in light of management's experience and perception of historical trends, current conditions and expected future developments, as well as other factors that may be appropriate.

Forward-looking statements necessarily involve unknown risks and uncertainties, which could cause actual results or outcomes to differ materially from those expressed or implied in such statements. Due to the risks, uncertainties and assumptions inherent in forward-looking information, you should not place undue reliance on forward-looking statements. Factors that could have a material adverse effect on our business, financial condition, results of operations and growth prospects can be found in *Item 1A, Risk Factors*, *Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations* and elsewhere in this Annual Report. These factors include, but are not limited to, the following:

- planned expenditures and budgets and the execution thereof, including the ability of the Company to discharge its liabilities as they become due;
- access to capital and suitable financing sources to fund the exploration, permitting, development and construction of the Project and to continue as a going concern;
- permitting timelines and requirements, including with respect to the timing and outcome of the Final Environmental Impact Statement ("FEIS"), the record of decision and other permitting processes;
- regulatory and legal changes, requirements for additional capital, requirements for additional water rights and the potential effect of proposed notices of environmental conditions relating to mineral claims;
- analyses and other information based on expectations of future performance and planned work programs;
- possible events, conditions or financial performance that are based on assumptions about future economic conditions and courses of action;
- assumptions and analysis underlying our mineral reserve estimates and plans for mineral resource exploration and development;
- timing, costs and potential success of future activities on the Company's properties, including but not limited to development and operating costs in the event that a production decision is made;
- potential results of exploration, development and environmental protection and remediation activities;
- future outlook and goals;
- current or future litigation or environmental liability;
- global economic, political and social conditions and financial markets;
- inflation levels, particularly the recent rise to historically high levels, and government efforts to reduce inflation, including increased interest rates;
- changes in gold and antimony commodity prices;

- our ability to implement our strategic plan and to maintain and manage growth effectively;
- loss of our key executives;
- labor shortages and disruptions;
- cyber-attacks and other security breaches of our information and technology systems; and
- other factors and risks described under the heading "Risk Factors" in *Item 1A* of this Annual Report.

Statements concerning mineral resource and mineral reserve estimates may also be deemed to constitute forward-looking information to the extent that such statements involve estimates of the mineralization that may be encountered if a property is developed.

With respect to forward-looking information contained herein, the Company has applied several material factors or assumptions including, but not limited to, certain assumptions as to production rates, operating cost, recovery and metal costs; that any additional financing needed will be available when needed on reasonable terms; that the current exploration, development, environmental and other objectives concerning the Company's Stibnite Gold Project (the "Project" or "Stibnite Gold Project") can be achieved and that the Company's other corporate activities will proceed as expected; that the formal review process under the National Environmental Policy Act ("NEPA") (including a joint review process involving the United States Forest Service ("USFS" or "Forest Service"), the State of Idaho and other agencies and regulatory bodies) as well as the environmental impact statements will proceed in a timely manner and as expected; that the progression of the litigation involving the Nez Perce Tribe will proceed in a timely manner and as expected; that the current price and demand for gold and other metals will be sustained or will improve; that general business and economic conditions will not change in a materially adverse manner and that all necessary governmental approvals for the planned exploration, development and environmental protection activities on the Project will be obtained in a timely manner and on acceptable terms; and that the continuity of economic and political conditions and operations of the Company will be sustained.

These risks are not exhaustive. Because of these risks and other uncertainties, our actual results, performance or achievement, or industry results, may be materially different from the anticipated or estimated results discussed in the forward-looking statements in this Annual Report. New risk factors emerge from time to time, and it is not possible for our management to predict all risk factors nor can we assess the effects of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in, or implied by, any forward-looking statements. Our past results of operations are not necessarily indicative of our future results. You should not rely on any forward-looking statements, which represent our beliefs, assumptions and estimates only as of the dates on which they were made, as predictions of future events. We undertake no obligation to update these forward-looking statements, even though circumstances may change in the future, except as required under applicable securities laws. We qualify all of our forward-looking statements by these cautionary statements.

GLOSSARY OF TECHNICAL TERMS

Conversion Factors

To Convert From	To	Multiply By
Feet	Metres (**m**)	0.305
Metres	Feet (**ft**)	3.281
Miles	Kilometres (**km**)	1.609
Kilometres	Miles	0.6214
Hectares	Acres (**ac**)	2.471
Grams	Ounces (Troy) (oz)	0.03215
Grams/Tonnes	Ounces (Troy)/Short Ton (oz/ton)	0.02917
Tonnes (metric)	Pounds (lbs)	2,205
Tonnes (metric)	Short Tons (st)	1.1023
Grams	Ounces (Troy) (oz)	0.03215

The following is a glossary of certain terms used in this Annual Report:

Assay means, in economic geology, to analyze the proportions of metal in a rock or overburden sample; to test an ore or mineral for composition, purity, weight or other properties of commercial interest.

CERCLA means Comprehensive Environmental Response, Compensation, and Liability Act, referenced informally as "Superfund."

CIM means the Canadian Institute of Mining, Metallurgy and Petroleum.

Deposit means a mineralized body which has been physically delineated by sufficient drilling, trenching, and/or underground work, and found to contain a sufficient average grade of metal or metals to warrant further exploration and/or development expenditures; such a deposit does not qualify as a commercially mineable ore body or as containing ore reserves, until final legal, technical, and economic factors have been resolved.

g/t Au means grams of gold per metric tonne of material.

Grade means the amount of valuable metal in each tonne of ore, expressed as grams per tonne (g/t) for precious metals and as percent ()% for antimony.

km means kilometre(s).

m means metre(s) (equivalent to 3.281 feet).

M means million.

Mineralization means the concentration of metals and their chemical compounds within a body of rock.

Mineral Reserve or *mineral reserve* means an estimate of tonnage and grade or quality of indicated and measured mineral resources that, in the opinion of the qualified person, can be the basis of an economically viable project. More specifically, it is the economically mineable part of a measured or indicated mineral resource, which includes diluting materials and allowances for losses that may occur when the material is mined or extracted.

Mineral Resource or *mineral resource* means a concentration or occurrence of 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 economic extraction. A mineral resource is a reasonable estimate of mineralization, taking into account relevant factors such as cut-off grade, likely mining dimensions, location or continuity, that, with the assumed and justifiable technical and economic conditions, is likely to, in whole or in part, become economically extractable. It is not merely an inventory of all mineralization drilled or sampled.

Ore means a mineral reserve of sufficient value as to quality and quantity to enable it to be mined at a profit.

Ounce or oz means a troy ounce or twenty penny weights or 480 grains and is equivalent to 31.1035 grams.

Oz/t or oz/st means a troy ounce per short ton.

Plan of Restoration and Operations or *PRO* for a mining project on National Forest Lands is a summary of activities intended or proposed to occur on federal lands. The PRO provides the Forest Service with a list of the proponents' contact and legal information, name of mining district or mineralized area, surface disturbance map, description of the type and magnitude of proposed operations, estimated timing of activities, and plans for reclamation of disturbed areas during and following mining related activities.

POx means pressure oxidation.

2016 PRO means the PRO that was filed by the Corporation with the U.S. Forest Service in September 2016.

Sampling means a technique for collecting representative sub-volumes from a larger volume of geological material. The particular sampling method employed depends on the nature of the material being sampled and the kind of information required.

NOTICE REGARDING MINING PROPERTY DISCLOSURE RULES

The material scientific and technical information in respect of the Stibnite Gold Project in this Annual Report, unless otherwise indicated, is based upon information contained in the Technical Report Summary (the "TRS"), dated as of December 31, 2021, and amended as of June 6, 2022, developed for the Stibnite Gold Project in accordance with the mining property disclosure rules specified in Regulation S-K 1300 ("S-K 1300") promulgated by the U.S. Securities and Exchange Commission (the "SEC"). The TRS summarizes, in accordance with the mining property disclosure rules specified in S-K 1300, the technical report titled "Stibnite Gold Project, Feasibility Study Technical Report, Valley County, Idaho" dated effective December 22, 2020 and issued January 27, 2021 (the "2020 Feasibility Study"), which was prepared in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101"). 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. These standards differ from the mining property disclosure rules specified in S-K 1300. Accordingly, information concerning mineral deposits from the TRS set forth herein may not be comparable with information made public by companies that report in accordance with NI 43-101.

All disclosure contained in this Annual Report regarding the mineral reserves and mineral resource estimates and economic analysis on the property is fully qualified by the full disclosure contained in the 2020 Feasibility Study and the TRS.

Information of a scientific or technical nature in this Annual Report has been approved by Christopher Dail, AIPG CPG #10596, Exploration Manager for Perpetua Resources Idaho, Inc. and a qualified person (as defined in NI 43-101 and as defined in S-K 1300).

See also "*Cautionary Note Regarding Forward-Looking Statements*."

PART I

Item 1. Business

Overview

The Corporation was incorporated under the *Business Corporations Act* (British Columbia) on February 22, 2011 under the name "Midas Gold Corp." The Corporation changed its name to "Perpetua Resources Corp." on February 15, 2021.

The Corporation's head office is located at Suite 201 – 405 South 8th Street, Boise, Idaho, U.S.A. 83702 and its registered and records office is located at Suite 1008 – 550 Burrard Street, Vancouver, British Columbia V6C 2B5.

The Corporation is a development-stage company engaged in acquiring mining properties with the intention of exploring, evaluating and placing them into production, if warranted. Currently, its principal business is the exploration and, if warranted and subject to receipt of required permitting, redevelopment, restoration and operation of the Stibnite Gold Project in Idaho, USA. The Corporation is currently undertaking an extensive permitting process for redevelopment and restoration of the Project.

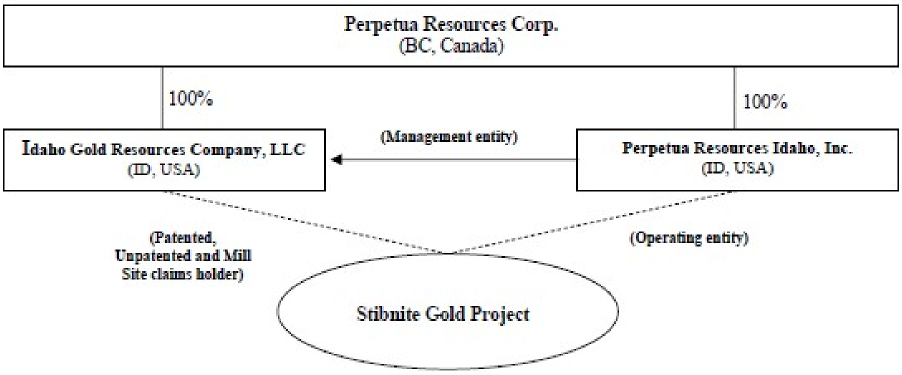
Mineral exploration and development are expected to constitute the principal business of the Corporation for the coming years. In the course of realizing its objectives, it is expected the Corporation may enter into various agreements specific to the mining industry, such as purchase or option agreements to purchase mining claims and/or joint venture agreements.

The Corporation's principal mineral project is the Stibnite Gold Project, which contains several gold, silver and antimony mineral deposits. The Corporation's current focus is to explore, evaluate and potentially redevelop three of the deposits known as the Hangar Flats Deposit, West End Deposit and Yellow Pine Deposit, all of which are located within the Stibnite Gold Project as well as reprocess certain historical tailings located on the Project. These development activities would be undertaken in conjunction with a major restoration program designed to address legacy impacts related to historical mining activities in the Project area.

The Corporation's subsidiaries' property holdings at the Stibnite Gold Project are comprised of a contiguous package of unpatented federal lode claims, unpatented federal mill sites, patented lode mining claims and patented mill sites. As of December 31, 2022, this land position encompassed approximately 11,548 hectares held in 1,668 unpatented lode claims and mill sites and patented land holdings. A subsidiary of the Corporation acquired these rights through a combination of purchases and transactions and staking under the 1872 Mining Law and holds a portion under an option agreement. Bureau of Land Management claim rental payments and filings are current as of the date of this filing and the claims are all held in good standing. During the reporting period 53 of the Corporation's unpatented lode mining claims were relinquished and re-staked with 203 unpatented mill sites over areas non-mineral in character and suitable for mill sites should a development decision be made. Normal maintenance and upkeep of the Project infrastructure continued during the year.

Corporate Structure

The following chart shows the intra-corporate relationships between the Corporation and its subsidiaries. Perpetua Resources Idaho, Inc. ("PRII") has no ownership interest in the Stibnite Gold Project; rather, it is the designated operating entity and manages the activities on the Project site. The property holding entity, Idaho Gold Resources Company, LLC ("IGRCLLC"), is the surviving entity in a merger with Stibnite Gold Company ("SGC") effective June 3, 2021 and is managed pursuant to an operating agreement with PRII. PRII and IGRCLLC are wholly owned by the Corporation.



IGRCLLC holds title to the Yellow Pine, Hangar Flats, and West End deposits, all of the patented mill sites and all of the unpatented federal lode mining claims and unpatented mill sites.

Permitting and Environmental Matters

Perpetua Resources focuses on the exploration and mining of the Stibnite Gold Project, the reclamation of prior deposits and historical tailings, and the restoration of the area to address historical activities and legacy contamination. Our project is, therefore, subject to numerous environmental regulations, including federal, state, and local laws. Significantly, we are subject to formal review under NEPA and extensive permitting requirements. In 2016, the Forest Service began its formal review of the Stibnite Gold Project under NEPA. The Forest Service completed scoping in 2017 and subsequently pursuant to the NEPA process, the United States Forest Service and cooperating agencies undertook extensive review of our project and proposed actions through a Draft Environmental Impact Statement ("DEIS"), released by the USFS in August 2020. In response to public and agency feedback on the DEIS, Perpetua Resources proposed modifications to the mine plan analyzed in DEIS Alternative 2 to include reduction of the project footprint, improvements in water quality, and lower water temperatures. Perpetua Resources submitted a refined proposed action to the USFS in December 2020 (the "Modified Mine Plan").

The USFS then prepared a Supplemental Draft Environmental Impact Statement ("SDEIS") to further evaluate the project refinements and compare the Company's proposed site access via Burntlog Route to an alternative option using current roads. After nearly two years of review, the SDEIS was published on October 28, 2022 for a 75-day public comment period. The USFS identified Perpetua Resources' proposed action, the "Modified Mine Plan," as the Preferred Alternative and concluded that it would reasonably accomplish the purpose and need for consideration of approval of the Stibnite Gold Project, while giving consideration to environmental, economic, and technical factors. Under NEPA, a "Preferred Alternative" is identified by a Federal agency in a DEIS to let the public know which action the agency is leaning toward selecting as final. However, identification of a "Preferred Alternative" does not represent a final decision and the USFS may still choose various actions based on the Modified Mine Plan or each of the alternatives analyzed in the SDEIS when developing the Final Environmental Impact Statement ("FEIS").

The SDEIS public review period closed on January 10, 2023. Following completion of the comment period and analysis, the Company expects the USFS to provide a schedule update including the expected timing for the release of the FEIS, a draft Record of Decision and a final Record of Decision. We continue to work on obtaining the required ancillary permits in parallel with the agency's timeline.

Our project is subject to ongoing litigation and could face further litigious challenges in the future. To address historical legacy impacts at the site of the Stibnite Gold Project, Perpetua Resources has voluntarily entered into an Administrative Settlement Agreement and Order on Consent ("ASAOC") with the United States Environmental Protection Agency (the "U.S. EPA") and the United States Department of Agriculture, pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act. Finalized on January 15, 2021, the ASAOC provides for a number of time critical removal actions (early cleanup actions) designed to improve water quality in several areas of the site. Upon signing of the ASAOC, the aggregate cost of the obligation was estimated to be approximately $7,473,805. In 2021 and 2022, the total cost estimate to voluntarily address environmental conditions increased to $16,763,262 due to scope changes, inflation and higher fuel prices. As of December 31, 2022, the corresponding environmental liability was estimated to be $10,800,936. See also Note 11 to the Consolidated Financial Statements.

Government and Environmental Regulations

Mining operations and exploration activities are subject to extensive national, state, and local laws and regulations in the United States, which govern prospecting, development, mining, production, exports, taxes, labor standards, occupational health, waste disposal, protection of the environment, mine safety, hazardous substances, disclosure requirements and other matters. The Corporation plans to obtain the licenses, permits or other authorizations currently required to conduct its exploration or development programs, and it believes it is currently in material compliance with governing mining, health, safety and environmental statutes and regulations in the United States and Idaho. Except as otherwise noted above, we are not subject to any orders or directions with respect to the foregoing laws and regulations. For a more detailed discussion of the various government laws and regulations applicable to our operations and potential negative effects of these laws and regulations, see section *Item 1A, Risk Factors*, below.

Our operations are also subject to numerous environmental, health, and safety laws and regulations in the jurisdictions in which we operate. These laws and regulations may require us to take precautions with respect to threatened, endangered, or otherwise protected species and their habitat as well as other natural, historical, and cultural resources, perform environmental assessments or impact statements, implement siting and operational programs or best practices to minimize environmental impacts from our operations, perform investigatory remedial obligations, and obtain federal, state, and local permits, licenses, or other approvals. Failure to comply with these laws and regulations may result in the imposition of significant fines or penalties. Additionally, we could experience significant opposition from third parties to our application for such permits or during the administrative agency review and appeal process after the issuance of such permits. Delays or denial of permits, or the imposition of costly and difficult to comply with conditions, may impair the development of our Project or curtail our planned operations. The following provides a summary of the more significant environmental, health, and safety laws and regulations which our operations are subject to and for which compliance with may have a material adverse impact on our business.

National Environmental Policy Act ("NEPA")

Our Project is subject to environmental review under NEPA. This law requires federal agencies to evaluate the environmental impact of their actions that may significantly affect the quality of the human environment and is a prerequisite for the granting of a permit or similar authorization for the development of certain projects. As part of the review, the federal agencies are required to consider numerous environmental impacts, such as impacts on air quality, water quality, cultural resources, wildlife, geology, aesthetics, as well as alternatives to the project. The review process can lead to significant delays in approval of such projects and the issuance of the requisite permits which, in turn, can impact both the cost and development of operations. As a result of NEPA review, agencies may decide to deny permits or other support for a project, or condition approvals on certain modifications or mitigation actions. Additionally, authorizations under NEPA are subject to litigation, protest, or appeal, which has the potential to lead to further delays.

Pursuant to NEPA, the Forest Service and cooperating agencies undertook additional extensive review of our Project and proposed actions. As a result of this review, a SDEIS was published on October 28, 2022 for a 75-day public comment period which closed on January 10, 2023.

Comprehensive Environmental Response, Compensation, and Liability Act

The site upon which our Project is located has significant legacy contamination. The Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") can impose joint and several liability, without regard to fault or legality of conduct, on classes of persons who are statutorily responsible for the release of hazardous substances into the environment. These persons include current owners or operators of a site where a release has occurred. Under CERCLA, such current owners or operators may be subject to strict, joint and several liability for the entire cost of cleaning up hazardous substances and for other expenditures, such as response costs and damage to natural resources. Idaho also has environmental cleanup laws analogous to CERCLA.

Voluntary early cleanup actions can be undertaken pursuant to settlement agreements under CERCLA. We entered into an ASAOC with the U.S. EPA and the United States Department of Agriculture to conduct a number of time critical removal actions focused on improving water quality in several areas of the site.

Protection of Species and Habitat

Our operations are subject to several environmental regulations and guidelines regarding various protected species and their habitats and include the federal Endangered Species Act, the Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act, alongside similar state laws. These laws impose significant civil and criminal penalties for violations, including injunctions limiting or otherwise prohibiting operations in certain areas where protected species or their habitat is located. The imposition of such restrictions, such as seasonal limitations, may result in additional costs and delays and could impact the feasibility of our Project.

Clean Water Act

The Clean Water Act ("CWA") and other similar federal and state laws and regulations may require us to obtain permits for water discharges or take mitigation actions with respect to loss of wetlands. Additionally, such regulations require us to implement a variety of best management practices to ensure that water quality is protected and the impacts of our operations on water quality are minimized. The CWA and analogous laws and regulations provide for administrative, civil and criminal penalties for unauthorized discharges of pollutants in reportable quantities and may impose substantial potential liability for the costs of addressing such discharges.

Mine and Safety Health Administration

Mining operations are regulated by the U.S. Department of Labor's Mine and Safety Health Administration ("MSHA") which carries out the provisions of the Federal Mine Safety and Health Act of 1977, as amended by the Mine Improvement and New Emergency Response Act of 2006. MSHA enforces the health and safety rules for all U.S, mines and includes mine inspections regarding compliance with applicable laws and regulations. MSHA has the ability to issue citations and orders and assess penalties for health and safety violations.

District Exploration

No exploration drilling was completed during the reporting period. Activities during the reporting period focused on studies to support permitting and design, engineering and environmental studies to support the ongoing activities related to the ASAOC.

Employees

At December 31, 2022, the Corporation had 29 full time employees and 1 part time employee. 27 employees were directly related to the mineral development activities of the Stibnite Gold Project and the remaining 3 employees were focused on executive management and administrative support of the Corporation. A total of 24 employees were employed in Idaho; however, in 2022, most of the Perpetua Resources team continued working remotely, when possible. The Corporation also contracts out certain activities with specific skills to assist with various aspects of the Project.

Competition

The gold exploration and mining business is a competitive business. The Corporation competes with numerous other companies possessing greater financial and technical research resources. Competition is particularly intense with respect to the acquisition of desirable undeveloped gold properties. In addition, we also encounter competition for the hiring of key personnel. This competition could adversely impact our ability to advance the Project, acquire suitable prospects for exploration in the future on terms we consider acceptable, attract necessary capital funding or acquire an interest in additional properties.

Environmental, Social and Governance ("ESG")

Our commitment to ESG practices is a core part of our business and has been since our inception, as formalized by our ESG Policy. Our operations are guided by responsible and sustainable mining practices and incorporate strong corporate governance values and stakeholder engagement. We engage regularly with key stakeholders and other interested parties, which allows us to better understand their interests, perspectives, and needs. We also believe in both transparency and accountability as key attributes of our governance strategy and seek to deliver information in an open and consistent manner, as denoted by our Sustainability Report released in 2022. Our commitment to ESG is also incorporated into our conservation principles which govern the development of our Project and, ultimately, our operations.

Our ESG Policy, Sustainability Roadmap and our 2021 Sustainability Report can be found on the Company's website. Information on our website is neither part of, nor incorporated into, this Annual Report on Form 10-K.

Availability of Raw Materials

The raw materials we require to carry on our business are readily available through normal supply or business contracting channels in the United States and Canada. Historically, we have been able to secure the appropriate equipment and supplies required to conduct our contemplated programs. As a result, we do not believe that we will experience any shortages of required equipment or supplies in the foreseeable future.

Gold Price History

The price of gold is volatile and is affected by numerous factors, all of which are beyond our control, such as the sale or purchase of gold by various central banks and financial institutions, inflation, recession, fluctuation in the relative values of the U.S. dollar and foreign currencies, changes in global and regional gold demand, in addition to international and national political and economic conditions. The following table presents the annual high, low and average daily afternoon London Bullion Market Association ("LBMA") gold price over the past five calendar years on the London Bullion Market ($/ounce):

Year	High	Low	Average
2018	$ 1,355	$ 1,178	$ 1,269
2019	$ 1,546	$ 1,270	$ 1,392
2020	$ 2,067	$ 1,474	$ 1,770
2021	$ 1,943	$ 1,684	$ 1,799
2022	$ 2,039	$ 1,629	$ 1,801
2023 (through March 9)	$ 1,932	$ 1,811	$ 1,870

Data Source: www.kitco.com

Implications of Being an Emerging Growth Company

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act (the "JOBS Act") enacted in April 2012. Certain specified reduced reporting and other regulatory requirements are available to public companies that are emerging growth companies. These provisions include:

- an exemption from the auditor attestation requirement in the assessment of the effectiveness of our internal controls over financial reporting required by Section 404 of the Sarbanes-Oxley Act of 2002;
- an exemption from the adoption of new or revised financial accounting standards until they would apply to private companies;
- an exemption from compliance with any new requirements adopted by the Public Company Accounting Oversight Board requiring mandatory audit firm rotation or a supplement to the auditor's report in which the auditor would be required to provide additional information about our audit and our financial statements; and
- reduced disclosure about our executive compensation arrangements.

We will continue to be an emerging growth company until the earliest of:

- the last day of our fiscal year in which we have total annual gross revenues of $1.235 billion (as such amount is indexed for inflation every five years by the SEC to reflect the change in the Consumer Price Index for All Urban Consumers published by the Bureau of Labor Statistics, setting the threshold to the nearest $1 million) or more;

- the last day of our fiscal year following the fifth anniversary of the date of our first sale of common equity securities pursuant to an effective registration statement under the Securities Act of 1933 ("Securities Act");
- the date on which we have, during the prior three-year period, issued more than $1 billion in non-convertible debt; or
- the date on which we are deemed to be a "large accelerated filer" under the rules of the SEC, which means the market value of our common shares that is held by non-affiliates (or public float) exceeds $700 million as of the last day of our second fiscal quarter in our prior fiscal year.

We have elected to take advantage of certain of the reduced disclosure obligations in this Annual Report and may elect to take advantage of other reduced reporting requirements in future filings. As a result, the information that we provide to our shareholders may be different than what you might receive from other public reporting companies in which you hold equity interests.

Available Information

We file or furnish annual, quarterly and current reports, proxy statements and other documents with the SEC under the Exchange Act. The SEC maintains a website (*www.sec.gov*) that contains reports, proxy and information statements, and other information regarding issuers, including Perpetua, that file electronically with the SEC. We are also subject to requirements of the applicable securities laws of Canada, and documents that we file with the Canadian Securities Administrators may be found at *www.sedar.com*.

We make available free of charge through our website (*www.perpetuaresources.com*) our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and, if applicable, amendments to those reports filed or furnished pursuant to Section 13(a) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC or the securities commissions or similar regulatory authorities in Canada. In addition to the reports filed or furnished with the SEC and the securities commissions or similar regulatory authorities in Canada, we publicly disclose information from time to time in our press releases, investor presentations posted on our website and at publicly accessible conferences. Such information, including information posted on or connected to our website, is not a part of, or incorporated by reference in, this Annual Report or any other document we file with or furnish to the SEC or the securities commissions or similar regulatory authorities in Canada.

We have adopted a Code of Conduct and Ethics Policy (the "Code of Conduct") that applies to our management and to our other employees. We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K relating to amendments to or waivers from any provision of our Code of Conduct applicable to our principal executive officer, principal financial officer, principal accounting officer and other persons performing similar functions by posting such information on our website (*www.perpetuaresources.com*). Our other policies and the charters of our Audit, Compensation and Corporate Governance and Nominating Committees are available on our website. Information on our website is neither part of, nor incorporated into, this Annual Report on Form 10-K.

Item 1A. Risk Factors.

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

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;
- 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.

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 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.

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;

- 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 of obtaining required government permits and approvals, responding to opposition to the Project, including potential litigation, the availability and cost of financing, the participation of our partners, and the execution of any sale or joint venture agreements with strategic partners. These factors, and others, are beyond our control. There is no assurance that we will be profitable in the future.

We have a limited property portfolio.

At present, our only material mineral property is the interest that we hold through our subsidiary in the Project. Unless we acquire or develop additional mineral properties, we will be solely dependent upon this property. If no additional mineral properties are acquired by us, any adverse development affecting our operations and further development at the Project may have a material adverse effect on our financial condition and results of operations.

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. Perpetua Resources expects that current cash resources, combined with the full DPA funding under the TIA, provide the Company with sufficient liquidity to complete permitting and early restoration activities on the current timeline as well as additional liquidity to begin advancing construction readiness into 2024. However, the Corporation expects to require additional financing to complete pre-construction and construction activities.

In addition, according to the TRS, the total initial capital cost estimate for the Project is approximately $1,263 million. These cost estimates may change materially and 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.

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 a TIA of up to $24.8 million under Title III of the DPA. The TIA is subject to negotiation of a definitized agreement with the DOD. Until the agreement is definitized, the maximum funding available under the TIA is capped at $18,600,000, 75% of the not-to-exceed amount. Perpetua Resources expects to enter into a definitized agreement in the first half of 2023. However, there is no assurance that Perpetua Resources will be able to finalize the definitized agreement on the expected timeline or at all. The TIA also 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.

Under the funding agreement, Perpetua Resources may request reimbursement for certain costs incurred over 24 months 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. 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 are subject to NEPA review and may be unable to obtain or retain necessary permits which could adversely affect our operations.

Our mining and exploration development activities are subject to extensive permitting requirements which can be costly to comply with and involve extended timelines. Specifically, we are subject to NEPA review, a federal process which is presently ongoing. Formal review under NEPA is extensive and involves several actions, including public scoping, coordination with cooperating agencies, the release of environmental impact statements followed by public comment, potential administrative objections, and the issuance of a final record of decision. Delays in the NEPA process, such as we are unable to timely obtain a record of decision from the United States Forest Service or fail to obtain requisite ancillary permits, may adversely impact our operations. Additionally, to the extent that we are granted necessary permits, we may be subject to a number of Project requirements or conditions including the installation or undertaking of programs to safeguard protected species and their habitat, sites, or otherwise limit the impacts of our operations. Previously obtained permits may be suspended or revoked for a variety of reasons. While we strive to comply with and conclude the NEPA review process, and obtain and comply with all necessary permits and approvals, any failure to do so may have negative impacts upon our business or financial condition, such as increased delays, curtailment of our operations, increased costs, implementation of mitigation or remediation requirements, the potential for litigation or regulatory action, and damage to our reputation.

We are subject to extensive environmental laws and regulations, where compliance failure may impact our operations.

Our mining, exploration, and development operations are subject to extensive environmental, health, and safety laws and regulations in the jurisdictions in which we operate and include those relating to the discharge and remediation of materials in the environment, waste management, and natural resource protection and preservation. Numerous governmental authorities, such as the U.S. EPA, and analogous state agencies, have the authority to enforce compliance with these laws and regulations and the permits issued thereunder, oftentimes requiring difficult and costly response actions. Certain environmental laws, such as CERCLA, impose strict, joint and several liability for costs required to remediate and restore sites where hazardous substances have been stored or released, including sites subject to legacy contamination. We may be required to remediate contaminated properties currently owned and operated by us regardless of whether such contamination resulted from our actions or from the conduct of others. Additionally, claims for damages to persons or property, including damages to natural resources, may result from the environmental, health, and safety impacts of our operations.

We may incur substantial costs to maintain compliance with environmental, health, and safety laws and regulations and such costs could increase if existing laws and regulations are revised or reinterpreted or if new laws or regulations become applicable to our operations. Failure to comply with these environmental, health, and safety laws and regulations may result in the imposition of restrictions on our operations, administrative civil or criminal liabilities, injunctions, third-party property damage or personal injury claims, investigatory cleanup or other remedial obligations, or other adverse effects on our business, financial condition, or operations. Current and future legislative, regulatory, and judicial action could result in changes to operating permits, material changes in operations, and increased capital and operating expenditures, among others.

Our operations are also subject to extensive laws and regulations governing worker health and safety and require us to ensure our employees receive adequate training and guidance to follow applicable environmental, health, and safety policies, procedures, and programs. Failure to comply with applicable legal requirements may cause us to incur significant legal liability, penalties, or fines, result in reputational damage, and negatively impact our employee retention. Our mines will be inspected on a regular basis by government regulators who may issue orders and citations if they believe a violation of applicable mining health and safety laws has occurred. In such cases, we may be subject to fines, penalties, or sanctions, and our operations temporarily shut down. Additionally, future changes in applicable laws and regulations, including more rigorous enforcement, could have an adverse impact on operations and result in increased material expenditures to achieve compliance.

Our operations, including permitting, may be subject to legal challenges which could result in adverse impacts to our business and financial condition.

Our mining, exploration, and development operations, and the permits required for such activities, may be subject to legal challenges at the international, federal, state, and local level by various parties. Such legal challenges may allege non-compliance with laws and regulations. For example, in August 2019, the Nez Perce Tribe filed a complaint in the United States District Court for the District of Idaho alleging our operations violated the CWA and seeking declaratory and injunctive relief. Following the execution of the voluntary ASAOC with the U.S. EPA and the United States Department of Agriculture, the Corporation and the Nez Perce Tribe agreed to stay the litigation and explore alternative dispute resolution through court-ordered mediation. Legal challenges such as this may result in adverse impacts to our planned operations such as increased defense costs, the performance of additional mitigation, or remedial activities, or significant delays to our Project. We may also be subject to more localized opposition, including efforts by environmental groups, which could attract negative publicity or have an adverse impact on our reputation.

Additionally, our Project is located in a district with significant impacts from legacy mining operations prior to our acquisition of and tenure at the sites. Pursuant to CERCLA, we may be subject to liability and remediation responsibilities as current owners of certain areas of the sites under applicable law, consent decrees or similar agreements.

The implementation of the Administrative Settlement Agreement and Order on Consent may be costly, time and resource intensive, and result in adverse impacts on our planned operations.

The ASAOC with the U.S. EPA and the United States Department of Agriculture requires us to undertake numerous actions over the next several years and pay associated costs for future response activities pursuant to CERCLA. Such actions include site characterization reports, the development of health and safety plans, removal projects, bank stabilization, investigations of underlying baseline conditions, and feasibility evaluations, to name only a few. These actions require us to implement stringent schedules including meetings and approvals from key stakeholders, such as the U.S. EPA and the Forest Service, as well as requiring contractor procurement, site preparation, and construction. The implementation of the ASAOC, and the potential for significant deviations and changes to our projected schedules and plans, may result in increased costs and expenditures, thus affecting the feasibility of our Project moving forward. Additionally, compliance with the ASAOC will be time intensive and resource intensive and may lead to adverse impacts upon on our operations, our financial condition, and our business overall.

Our operations are subject to climate change risks.

Climate change may result in various and presently unknown physical risks, such as the increased frequency or intensity of extreme weather events or changes in meteorological and hydrological patterns that could adversely impact our business. Such physical risks may result in damage to our facilities causing our operations to temporarily slow down or come to a stop. Moreover, the physical risks associated with climate change could have financial implications for our business, such as increased capital or operating costs, and additional expenditures to maintain or increase the resiliency of our facilities and implement contingency measures.

Increasing attention to ESG matters and conservation measures may adversely impact our business.

Increasing attention to, and societal expectations on companies to address, climate change and other environmental and social impacts and investor and societal expectations regarding voluntary ESG disclosures may result in increased costs and reduced access to capital. While we may announce various voluntary ESG targets in the future, due to our status as a development stage company, such targets are aspirational. Also, we may not be able to meet such targets in the manner or on such a timeline as initially contemplated, including, but not limited to, as a result of unforeseen costs or technical difficulties associated with achieving such results.

In addition, organizations that provide information to investors on corporate governance and related matters have developed ratings processes for evaluating companies on their approach to ESG matters. Unfavorable ESG ratings could lead to increased negative investor sentiment toward us and could impact our access to and costs of capital. Additionally, to the extent ESG matters negatively impact our reputation, we may not be able to compete as effectively to recruit or retain employees, which may adversely impact our business.

Furthermore, public statements with respect to ESG matters—for example, emission reduction goals, other environmental targets, or other commitments addressing certain social issues—are becoming increasingly subject to heightened scrutiny from public and governmental authorities related to the risk of potential "greenwashing," *i.e.*, misleading information or false claims overstating potential ESG benefits. We may face increased litigation risk from private parties and governmental authorities related to our ESG efforts. Additionally, any such alleged claims of greenwashing against us or others in our industry could lead to negative sentiment and the diversion of investment.

Perpetua Resources' title to its mineral properties and its validity may be disputed in the future by others claiming title to all or part of such properties.

The validity of mining rights may, in certain cases, be uncertain and subject to being contested. The Corporation's mining rights, claims and other land titles, particularly title to undeveloped properties, may be defective and open to being challenged by governmental authorities and local communities.

Perpetua Resources' properties consist of various mining concessions in the United States. Under U.S. law, the concessions may be subject to prior unregistered agreements or transfers, which may affect the validity of the Corporation's ownership of such concessions. A claim by a third party asserting prior unregistered agreements or transfer on any of Perpetua Resources' mineral properties, especially where commercially viable Mineral Reserves have been located, could adversely result in Perpetua Resources losing commercially viable Mineral Reserves. Even if a claim is unsuccessful, it may potentially affect Perpetua Resources' current activities due to the high costs of defending against such claims and its impact on senior management's time. If the Corporation loses a commercially viable Mineral Reserve, such a loss could lower Perpetua Resources' revenues or cause it to cease operations if this Mineral Reserve represented all or a significant portion of Perpetua Resources' operations at the time of the loss.

Certain of Perpetua Resources' properties may be subject to the rights or the asserted rights of various community stakeholders, including federally-recognized tribes. The presence of community stakeholders may also impact on the Corporation's ability to explore, develop or, in potentially the future, operate its mining properties. In certain circumstances, consultation with such stakeholders may be required and the outcome may affect the Corporation's ability to explore, develop or operate its mining properties.

Certain of the Corporation's mineral rights consist of unpatented mining claims. Unpatented mining claims present unique title risks due to the rules for validity and the opportunities for third-party challenge. These claims are also subject to legal uncertainty.

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.

The mineral resource industry is intensively competitive in all of its phases, and Perpetua Resources competes with many companies possessing much greater financial and technical research resources. Competition is particularly intense with respect to the acquisition of desirable undeveloped gold properties. The principal competitive factors in the acquisition of such undeveloped properties include the staff and data necessary to identify, investigate and purchase such properties, and the financial resources necessary to acquire and develop such properties. Competition could adversely affect the Corporation's ability to advance the Project or to acquire suitable prospects for exploration in the future on terms it considers acceptable. Increased competition could adversely affect the Corporation's ability to attract necessary capital funding or acquire an interest in additional properties.

Perpetua Resources depends on key personnel for critical management decisions and industry contacts but does not maintain key person insurance.

Perpetua Resources is dependent on a relatively small number of key personnel, the loss of any of whom could have an adverse effect on the operations of Perpetua Resources. The Corporation's success is dependent to a great degree on its ability to attract and retain highly qualified management personnel. The loss of any such key personnel, through incapacity or otherwise, would require Perpetua Resources to seek and retain other qualified personnel and could compromise the pace and success of its exploration and permitting activities. Perpetua Resources does not maintain key person insurance in the event of a loss of any such key personnel.

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. 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.*

Certain Perpetua Resources directors and officers also serve as officers and/or directors of other mining companies, which may give rise to conflicts.

Certain Perpetua Resources directors and officers are also directors, officers or shareholders of other companies that are similarly engaged in the business of acquiring, developing and exploiting natural resource properties. Such associations may give rise to conflicts of interest from time to time. Directors and officers of the Corporation with conflicts of interest are subject to and are required to follow the procedures set out in applicable corporate and securities legislation, regulations, rules and the Corporation's policies.

Perpetua Resources' business involves risks for which Perpetua Resources may not be adequately insured, if it is insured at all.

In the course of exploration and development of, and production from, mineral properties, certain risks, and in particular, unexpected or unusual geological operating conditions including landslides, ground failures, fires, flooding and earthquakes may occur. It is not always possible to fully insure against such risks. Perpetua Resources does not currently have insurance against all such risks and may decide not to take out insurance against all such risks as a result of high premiums or other reasons. Should such liabilities arise, they could reduce or eliminate any future profitability and result in increasing costs and a decline in the value of the securities of Perpetua Resources.

Additionally, the Corporation is not insured against most environmental risks. Insurance against all environmental risks (including potential liability for pollution or other hazards as a result of the disposal of waste products by third parties occurring as part of historic exploration and production) has not been generally available to companies within the industry. The Corporation periodically evaluates the cost and coverage of the insurance that is available against certain environmental risks to determine if it would be appropriate to obtain such insurance. Without such insurance, or with limited amounts of such insurance, and should the Corporation become subject to environmental liabilities, the payment of such liabilities would reduce or eliminate its available funds or could exceed the funds the Corporation has to pay such liabilities and could result in bankruptcy. Should the Corporation be unable to fully fund the remedial cost of an environmental problem, it might be required to enter into costly interim compliance measures pending completion of the required remedy.

A shortage of supplies and equipment, or the inability to obtain such supplies and equipment when needed and at expected prices, could adversely affect Perpetua Resources' ability to operate its business.

Perpetua Resources is dependent on various supplies and equipment to carry out its activities. The shortage of such supplies, equipment and parts, or the inability to obtain such supplies and equipment when needed, whether as a result of inflated costs, supply chain disruptions or other reasons, could have a material adverse effect on Perpetua Resources' ability to carry out its activities and therefore have a material adverse effect on the cost of doing business.

Risks Related to Our Industry

Resource exploration and development is a high risk, speculative business.

Resource exploration and development is a speculative business, characterized by a high number of failures. Substantial expenditures are required to discover new deposits and to develop the infrastructure, mining and processing facilities at any site chosen for mining. Resource exploration and development also involves a high degree of risk, which even a combination of experience, knowledge and careful evaluation may not be able to adequately mitigate. Few properties that are explored are ultimately developed into producing mines, and there is no assurance that commercial quantities of ore will be discovered on any of the Corporation's exploration properties. There is also no assurance that, even if commercial quantities of ore are discovered, a mineral property will be brought into commercial production, or if brought into production, that it will be profitable. The discovery of mineral deposits is dependent upon a number of factors, including the technical skill of the exploration personnel involved. The commercial viability of a mineral deposit is also dependent upon, among a number of other factors, its size, grade, proximity to infrastructure, current metal prices, and government regulations, including regulations relating to required permits, royalties, allowable production, importing and exporting of minerals and environmental protection. The exact effect of these factors cannot be accurately predicted, but any one of these factors, or the combination of any of these factors, may prevent Perpetua Resources from receiving an adequate return on invested capital. In addition, depending on the type of mining operation involved, several years can elapse from the initial phase of drilling until commercial operations are commenced. Some ore reserves may become unprofitable to develop if there are unfavourable long-term market price fluctuations in gold or other metals, or if there are significant increases in operating or capital costs. Most of the above factors are beyond the Corporation's control, and it is difficult to ensure that the exploration or development programs proposed by Perpetua Resources will result in a profitable commercial mining operation. Please also see, among other things, the risk factor found under the subheading "Perpetua Resources' future exploration and development efforts may be unsuccessful" below.

Mineral exploration and development is subject to numerous industry operating hazards and risks, many of which are beyond Perpetua Resources' control and any one of which may have an adverse effect on its financial condition and operations.

The Project, and any future operations in which Perpetua Resources has a direct or indirect interest, will be subject to all the hazards and risks normally incidental to resource companies and mining in general. Environmental hazards, unusual or unexpected geological operating conditions, such as rock bursts, structural cave-ins and landslides, fires, earthquakes and flooding, power outages, labor disruptions, industrial accidents such as explosions, unexpected mining dilution, metallurgical and other processing issues, metal losses and periodic interruptions due to inclement or hazardous weather conditions, and the inability to obtain suitable or adequate machinery, equipment or labor, are some of the industry operating risks involved in the conduct of exploration programs and the operation of mines. If any of these events were to occur, they could cause injury or loss of life, environmental damage, operational delays, monetary losses and/or severe damage to or destruction of mineral properties, production facilities or other properties. As a result, Perpetua Resources could be the subject of a regulatory investigation, potentially leading to penalties and suspension of operations. In addition, Perpetua Resources may have to make expensive repairs and could be subject to legal liability as an outcome of regulatory enforcement. The occurrence of any of these operating risks and hazards may have an adverse effect on Perpetua Resources' financial condition and operations, and correspondingly on the value and price of Perpetua Resources' common shares.

Perpetua Resources may not be able to obtain insurance to cover these risks at affordable premiums or at all. Insurance against certain environmental risks, including potential liability for pollution or other hazards as a result of operations or other mining activities, is not generally available to Perpetua Resources or to other companies within the mining industry. Perpetua Resources may suffer a materially adverse effect on its business if it incurs losses related to any significant events that are not covered by its insurance policies. Please also see, among other things, the risk factor found under the subheading "Perpetua Resources' business involves risks for which Perpetua Resources may not be adequately insured, if it is insured at all" above.

Metal prices have fluctuated widely in the past and are expected to continue to do so in the future, which may adversely affect the amount of revenues derived from the future commercial production.

The commercial feasibility of the Project and Perpetua Resources' ability to arrange funding to conduct its planned exploration projects is dependent on, among other things, the price of gold, silver, antimony and other potential by-products. Depending on the price to be received for any minerals produced, Perpetua Resources may determine that it is impractical to commence or continue commercial production. A reduction in the price of gold, silver, antimony or other potential by-products may prevent the Project from being economically mined or result in the write-off of assets whose value is impaired as a result of low precious metals prices.

Future revenues, if any, are expected to be in large part derived from the future mining and sale of gold and other potential by-products or interests related thereto. The prices of these commodities fluctuate and are affected by numerous factors beyond Perpetua Resources' control, including, among others:

- International economic and political conditions;
- Central bank purchases and sales;
- Expectations of inflation or deflation;
- International currency exchange rates;
- Interest rates;
- Global or regional consumptive patterns;
- Speculative activities;
- Levels of supply and demand;
- Increased production due to new mine developments;
- Decreased production due to mine closures;
- Improved mining and production methods;
- Availability and costs of metal substitutes;
- Metal stock levels maintained by producers and others; and
- Inventory carrying costs.

The effect of these factors on the price of gold, silver, antimony and other potential by-products cannot be accurately predicted. If the price of gold and other potential by-products decreases, the value of Perpetua Resources' assets would be adversely affected, thereby adversely impacting the value and price of Perpetua Resources' common shares.

While the price of gold has recently been strong, there can be no assurance that gold prices will remain at such levels or be such that the Project, and any future operations in which Perpetua Resources has a direct or indirect interest, will be mined at a profit. Some credible industry experts are predicting that gold will continue to increase in price during 2023 and the next several years. However, other credible industry experts expect that the price of gold has generally peaked during the recent pandemic and resulting economic crisis, and that as economies slowly recover over the next few years, the price of gold will decrease and be worth much less per ounce than it is today.

Rising metal prices encourage mining exploration, development, and construction activity, which in the past has increased demand for and cost of contract mining services and equipment.

Increases in metal prices tend to encourage increases in mining exploration, development, and construction activities. During past expansions, demand for and the cost of contract exploration, development and construction services and equipment have increased as well. Increased demand for and cost of services and equipment could cause project costs to increase materially, resulting in delays if services or equipment cannot be obtained in a timely manner due to inadequate availability, and increased potential for scheduling difficulties and cost increases due to the need to coordinate the availability of services or equipment, any of which could materially increase project exploration, development, or construction costs, result in project delays, or both. There can be no assurance that increased costs may not adversely affect the exploration and/or development of our mineral properties in the future.

Global financial markets can have a profound impact on the global economy in general and on the mining industry in particular.

Many industries, including the precious metal mining industry, are impacted by global market conditions. Some of the key impacts of financial market turmoil can include contraction in credit markets resulting in a widening of credit risk, devaluations and high volatility in global and specifically mining equity markets, commodity, foreign exchange and precious metal markets, and a lack of market liquidity. A slowdown in the financial markets or other economic conditions, including but not limited to, reduced consumer spending, increased unemployment rates, deteriorating business conditions, inflation, deflation, volatile fuel and energy costs, increased consumer debt levels, lack of available credit, lack of future financing, changes in interest rates and tax rates may adversely affect the Corporation's growth and profitability potential. Specifically:

- A global credit/liquidity crisis could impact the cost and availability of financing and Perpetua Resources' overall liquidity;
- The volatility of gold and other potential by-product prices may impact Perpetua Resources' future revenues, profits and cash flow;
- Volatile energy prices, commodity and consumables prices and currency exchange rates impact potential production costs; and
- The devaluation and volatility of global stock markets impacts the valuation of the Corporation's equity securities, which may impact its ability to raise funds through the issuance of equity.

Longstanding legal certainty about aspects of the 1872 Mining Law is being challenged in Federal Court.

A changing legal environment and court rulings related to the use of unpatented lode mining claims now being reviewed in federal courts may cause the Corporation to make modifications to its current claims management program and strategy.

On July 31, 2019, the U.S. District Court for the District of Arizona issued a decision vacating the Forest Service's approval of the plan of operations for the proposed Rosemont Mine. *See Center for Biological Diversity et al. v. United States Fish and Wildlife Service et al*. The court found that the Forest Service erred when it applied its surface management regulations to approve the proposed mine's tailings storage facility and waste rock dumps on National Forest lands. According to the District Court, the agency should have considered those facilities under its special use permit regulations. The Forest Service made that error, according to the court, because it did not confirm under the Mining Law that the unpatented mining claims under the ancillary facilities were "valid," as defined by the court. According to the District Court's reasoning, only activities on "valid" claims are regulated under the Forest Service mining regulations and ancillary facilities require a special use permit.

The decision was appealed and on May 12, 2022, the Ninth Circuit remanded the case back to the Forest Service for such further proceedings as it deems appropriate, including application of 36 CFR 228 subpart A to Rosemont's plan of operation, guided by the Court's ruling that Section 612 of the Surface Resources and Multiple Use Act of 1955 grants no rights beyond those granted by the

1872 Mining Law. The majority opinion expressly refrained from further interpretation regarding application of the 36 CFR 228A, 36 CFR 251 or other Forest Service regulations in advance of the Forest Service further considering and developing the project record regarding the specifics of the Rosemont plan of operations. In December 2022, the Rosemont defendant announced it would not appeal the Ninth Circuit's decision.

The Corporation has closely followed the Rosemont Mine legal proceedings. During the judicial proceedings, the Corporation directed a thorough analysis of its claims management program to support the Project Plan of Restoration and Operations. Notwithstanding that neither the validity of the 36 CFR 228 subpart A regulations was challenged in the Rosemont case nor their application to approval of the Rosemont plan of operations was determined by the federal courts, the Corporation's claims management program and strategy was adjusted during the reporting period relinquishing 53 of the Corporation's unpatented lode mining claims and re-staking with 203 unpatented mill sites over areas non-mineral in character and suitable for mill sites should a development decision be made.

Risks Related to Our Common Shares

The requirements of being a public company in the United States and Canada and maintaining a dual listing on both Nasdaq and the TSX, including compliance with the reporting requirements of the Exchange Act, the requirements of the Sarbanes-Oxley Act of 2002 ("Sarbanes-Oxley") and applicable securities laws of Canada, may strain our resources, increase our costs, and require significant management time and resources.

As a public company in the United States, we need to comply with federal and state laws, regulations and requirements, certain corporate governance provisions of Sarbanes-Oxley, related regulations of the SEC and the requirements of Nasdaq, with which we are not otherwise required to comply as a public company in Canada listed on the Toronto Stock Exchange (the "TSX"). These additional requirements may strain our resources, increase our costs and require significant management time and resources. Specifically, we may incur significant additional accounting, legal, reporting and other expenses in order to maintain a dual listing on both Nasdaq and the TSX, including the costs of listing on two exchanges. Complying with these statutes, regulations and requirements, as well as any applicable securities laws of Canada, occupies a significant amount of time of our Board of Directors (the "Board") and management and increases our costs and expenses, including an increased reliance on outside counsel and accountants. We also prepare and distribute periodic public reports in compliance with our obligations under the U.S. federal securities laws, in addition to applicable securities laws of Canada.

Shareholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which could then result in additional compliance costs and affect the manner in which we operate our business. Moreover, any new regulations or disclosure obligations may increase our legal and financial compliance costs and may make some activities more time-consuming and costly.

Furthermore, while we generally must comply with Section 404 of Sarbanes-Oxley for our fiscal year ended December 31, 2022, we are not required to have our independent registered public accounting firm attest to the effectiveness of our internal controls over financial reporting until our first annual report subsequent to our ceasing to be an "emerging growth company" within the meaning of the Exchange Act. Once it is required to do so, our independent registered public accounting firm may issue a report that is adverse in the event the independent registered public accounting firm concludes that there is one or more material weaknesses in the effectiveness of our internal control over financial reporting. Compliance with these requirements may strain our resources, increase our costs and use significant management time and resources, and we may be unable to comply with these requirements in a timely or cost-effective manner.

For as long as we are an "emerging growth company," or a "smaller reporting company" we will not be required to comply with certain reporting requirements that apply to some other public companies, and such reduced disclosures requirement may make our Common Shares less attractive.

As an "emerging growth company" as defined in the JOBS Act, we may take advantage of exemptions from certain disclosure requirements applicable to other public companies that are not emerging growth companies. We are an emerging growth company until the earliest of (i) the last day of the fiscal year during which we have total annual gross revenues of $1.24 billion or more; (ii) the last day of the fiscal year following the fifth anniversary of the first sale of common equity securities pursuant to an effective registration statement under the Securities Act; (iii) the date on which we have, during the previous three-year period, issued more than $1 billion in non-convertible debt; or (iv) the date on which we are deemed to be a "large accelerated filer" under the rules of the SEC.

For so long as we remain an "emerging growth company," we will not be required to, among others:

- Have an auditor report on our internal control over financial reporting pursuant to Sarbanes-Oxley;
- Comply with any new requirements adopted by the Public Company Accounting Oversight Board requiring mandatory audit firm rotation or a supplement to the auditor's report providing additional information about our audit and our financial statements;
- Include detailed compensation discussion and analysis in our filings under the Exchange Act and instead may provide a reduced level of disclosure concerning executive compensation; and
- Hold a non-binding stockholder advisory vote on executive compensation and stockholder approval of any "golden parachute" payments not previously approved.

Notwithstanding the above, we are also currently a "smaller reporting company," meaning that we are not an investment company, an asset-backed issuer, or a majority-owned subsidiary of a parent company that is not a smaller reporting company and have either: (i) a public float of less than $250 million, or (ii) annual revenues of less than $100 million during the most recently completed fiscal year and: (A) no public float, or (B) a public float of less than $700 million. In the event that we are still considered a "smaller reporting company," at such time we cease being an "emerging growth company," the disclosure we will be required to provide in our SEC filings will increase but will still be less than it would be if we were not considered either an "emerging growth company" or a "smaller reporting company". Specifically, similar to "emerging growth companies," "smaller reporting companies" are able to provide simplified executive compensation disclosures in their filings; are exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act requiring that independent registered public accounting firms provide an attestation report on the effectiveness of internal control over financial reporting; and have certain other decreased disclosure obligations in their SEC filings, including, among other things, only being required to provide two years of audited financial statements in annual reports. Decreased disclosures in our SEC filings due to our status as an "emerging growth company" or "smaller reporting company" may make it harder for investors to analyze the Company's results of operations and financial prospects.

Because of these disclosure exemptions, some investors may find our common shares less attractive, which may result in a less active trading market for our common shares, and our share price may be more volatile.

Provisions in the Company's corporate charter documents and Canadian law could make an acquisition of the Company, which may be beneficial to its shareholders, more difficult and may prevent attempts by the shareholders to replace or remove the Company's current management and/or limit the market price of the Common Shares.

We are governed by the *Business Corporations Act* (British Columbia) ("BCBCA") and other relevant laws. Provisions in Perpetua Resources' articles, as well as certain provisions under the BCBCA and *Competition Act* (Canada) may discourage, delay or prevent a merger, acquisition or other change in control of Perpetua Resources that shareholders may consider favorable, including transactions in which they might otherwise receive a premium for their Common Shares. These provisions could also limit the price that investors might be willing to pay in the future for Perpetua Resources' Common Shares, thereby depressing the market price of Perpetua Resources' Common Shares.

The *Competition Act* (Canada) permits the Commissioner of Competition of Canada, (the "Commissioner"), to review any acquisition of a significant interest in Perpetua Resources. This legislation grants the Commissioner jurisdiction to challenge such an acquisition before the Canadian Competition Tribunal if the Commissioner believes that it would, or would be likely to, result in a substantial lessening or prevention of competition in any market in Canada. The *Investment Canada Act* subjects an acquisition of control of a company by a non-Canadian to government review if the value of the Corporation's assets, as calculated pursuant to the legislation, exceeds a threshold amount. A reviewable acquisition may not proceed unless the relevant minister is satisfied that the investment is likely to result in a net benefit to Canada. Any of the foregoing could prevent or delay a change of control and may deprive or limit strategic opportunities for our shareholders to sell their shares.

In addition, because the Board is responsible for appointing the members of the Corporation's management team, these provisions may frustrate or prevent any attempts by Perpetua Resources' shareholders to replace or remove current management by making it more difficult for shareholders to replace members of the Board. Among other things, these provisions include the following:

- Shareholders cannot amend Perpetua Resources' articles unless such amendment is approved by shareholders holding at least two-thirds of the votes cast on the proposal;
- The Board may, without shareholder approval, issue first preferred shares and/or second preferred shares having any terms, conditions, rights, preferences and privileges as the Board may determine; and
- Shareholders must give advance notice to nominate directors in accordance with the Company's advance notice policy.

Because we are a corporation incorporated in British Columbia and some of our directors and officers may reside, now or in the future, in Canada, it may be difficult for investors in the United States to enforce civil liabilities against us based solely upon the federal securities laws of the United States. Similarly, it may be difficult for Canadian investors to enforce civil liabilities against our directors and officers that reside outside of Canada.

The Corporation is a corporation existing under the BCBCA. Some of the directors and officers named in this Annual Report may reside, now or in the future, in Canada or otherwise reside outside the United States, and all or a substantial portion of their assets may be located outside the United States. As a result, it may be difficult for United States investors to effect service of process within the United States upon the Corporation or experts who are not residents of the United States or to enforce judgments of courts of the United States predicated upon the Corporation's civil liability and the civil liability of its experts under the United States federal securities laws.

Similarly, some of our experts, directors and officers reside outside of Canada or, in the case of companies, are incorporated, continued or otherwise organized under the laws of a foreign jurisdiction. Purchasers are advised that it may not be possible for investors to enforce judgments obtained in Canada against any person or company that is incorporated, continued or otherwise organized under the laws of a foreign jurisdiction, or resides outside of Canada, even if the party has appointed an agent for service of process.

Perpetua Resources has no history of paying dividends, does not expect to pay dividends in the immediate future and may never pay dividends.

Since incorporation, neither Perpetua Resources nor any of its subsidiaries have paid any cash or other dividends on its common shares, and the Corporation does not expect to pay such dividends in the foreseeable future, as all available funds will be invested primarily to finance its mineral exploration programs.

Perpetua Resources will need to raise additional capital through the sale of its securities or other interests, resulting in potential for significant dilution to the existing shareholders and, if such funding is not available, Perpetua Resources' operations would be adversely affected.

Perpetua Resources has limited financial resources and has financed its activities primarily through the sale of Perpetua Resources' securities, such as common shares and convertible notes. Perpetua Resources expects that it will need to continue its reliance on the sale of its securities for future financing, including that required to complete the permitting process or begin construction, resulting in dilution to existing shareholders.

Future sales of Perpetua Resources' common shares into the public market by holders of Perpetua Resources options and warrants may lower the market price, which may result in losses to Perpetua Resources' shareholders.

Sales of substantial amounts of Perpetua Resources' common shares into the public market by shareholders, Perpetua Resources' officers or directors or pursuant to the exercise of options or warrants, or even the perception by the market that such sales may occur, may lower the market price of the Corporation's common shares.

Our largest shareholder has significant influence on us and may also affect the market price and liquidity of our securities.

Paulson & Co. Inc. ("Paulson") holds in the aggregate 39.3% of the outstanding shares in Perpetua as of March 7, 2023. Accordingly, Paulson will have significant influence in determining the outcome of any corporate transaction or other matter submitted to the shareholders for approval, including mergers, consolidations, and the sale of all or substantially all of our assets and other significant corporate actions. Unless full participation of all shareholders takes place in such shareholder meetings, Paulson may be able to approve such matters itself. The concentration of ownership of the common shares by Paulson may: (i) delay or deter a change of control of the Corporation; (ii) deprive shareholders of an opportunity to receive a premium for their common shares as part of a sale of the Corporation; and (iii) affect the market price and liquidity of the common shares. Pursuant to the terms of the investor rights agreement dated March 17, 2016, as amended and restated on March 17, 2020, Paulson has the right to designate two Board members so long as Paulson holds not less than 20% of our common shares and the right to designate one Board member so long as Paulson holds not less than 10% of our common shares. Christopher Papagianis and Marcelo Kim are Paulson's nominees to the Board and Marcelo Kim was appointed Chairman of our Board in March of 2020.

As long as Paulson maintains its shareholdings in the Corporation, Paulson will have significant influence in determining the members of the Board. Without the consent of Paulson, we could be prevented from entering into transactions that are otherwise beneficial to us. The interests of Paulson may differ from or be adverse to the interests of our other shareholders. The effect of these rights and Paulson's influence may impact the price that investors are willing to pay for our shares. If Paulson or its affiliates sell a substantial number of our common shares in the public market, the market price of the common shares could fall. The perception among the public that these sales will occur could also contribute to a decline in the market price of our common shares.

We are subject to taxation both in Canada and the United States, and shareholders may be subject to Canadian and U.S. withholding and certain other taxes.

We are treated as a Canadian resident company (as defined in the Income Tax Act (Canada)) subject to Canadian income tax. We are also treated as a U.S. corporation subject to U.S. federal income tax on our worldwide income pursuant to Section 7874 of the Internal Revenue Code of 1986, as amended (the "Code"). As a result, we are subject to taxation both in Canada and the United States, which could have a material adverse effect on our financial condition and results of operations.

It is unlikely that we will pay any dividends on our common shares in the foreseeable future. However, if we decide to pay any dividends, dividends received by shareholders who are not "United States persons" (within the meaning of the Code) will be subject to U.S. withholding tax. Shareholders who are residents of Canada (for purposes of the Income Tax Act (Canada)) may not qualify for a reduced rate of withholding tax under the United States-Canada income tax treaty. In addition, a foreign tax credit or a deduction in respect of any U.S. federal withholding tax may not be available under Canadian law.

Dividends received by shareholders who are not residents of Canada will be subject to Canadian withholding tax. Shareholders who are United States persons may not qualify for a reduced rate of withholding tax under the United States-Canada income tax treaty. Dividends paid by us will be characterized as U.S.-source income for purposes of the foreign tax credit rules under the Code. Accordingly, United States persons generally will not be able to claim a credit for any Canadian tax withheld on dividends unless, depending on the circumstances, they have an excess foreign tax credit limitation due to other foreign-source income of the same category that is subject to a low or zero rate of foreign tax.

Dividends received by shareholders who are neither United States persons nor residents of Canada will be subject to U.S. and Canadian withholding taxes. These dividends may not qualify for a reduced rate of withholding tax under any income tax treaty.

We believe we currently are, and anticipate remaining, a "United States real property holding corporation" (within the meaning of the Code) on account of owning substantial U.S. real property interests. As a result, a shareholder who is not a United States person generally will be subject to U.S. tax on any gain recognized on a sale or other disposition of our common shares if that shareholder owned (or is treated as having owned) more than 5% of our common shares within five years of the date of the sale or other disposition, or our common shares are not treated as "regularly traded on an established securities market" (within the meaning of U.S. Treasury regulations). In addition, if our common shares are not treated as regularly traded on an established securities market, a 15% U.S. withholding tax generally would apply to the gross proceeds from a sale or other disposition of our common shares by any shareholder who is not a United States person, which withholding can be credited against the applicable tax liability (described in the preceding sentence) on any gain recognized.

Because our common shares are treated as shares of a U.S. corporation, the U.S. gift, estate and generation-skipping transfer tax rules may be relevant to shareholders who are not United States persons.

Each shareholder should seek tax advice, based on the shareholder's particular circumstances, from an independent tax advisor.

General Risk Factors

We are required to develop and maintain proper and effective internal controls over financial reporting. We may not complete our analysis of our internal controls over financial reporting in a timely manner, or these internal controls may not be determined to be effective, which may adversely affect investor confidence in us and, as a result, the value of our common stock.

We are required, pursuant to Section 404 of the Sarbanes-Oxley Act, to furnish a report by management on, among other things, the effectiveness of our internal controls over financial reporting for the fiscal year ending December 31, 2022. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal controls over financial reporting. Additionally, we are required to disclose changes made in our internal controls and procedures on a quarterly basis.

However, for as long as we are an emerging growth company, or a smaller reporting company that is a non-accelerated filer, our independent registered public accounting firm will not be required to attest to the effectiveness of our internal control over financial reporting pursuant to Section 404(b). At such time this attestation will be required, our independent registered public accounting firm may issue a report that is adverse in the event the independent registered public accounting firm concludes that there is one or more material weaknesses in the effectiveness of our internal control over financial reporting. Our remediation efforts may not enable us to avoid a material weakness in the future. We may need to undertake various actions, such as implementing new internal controls and procedures and hiring additional accounting or internal audit staff.

If we are unable to assert that our internal controls over financial reporting are effective, or if our independent registered public accounting firm is unable to express an opinion on the effectiveness of our internal controls to the extent required, we could lose investor confidence in the accuracy and completeness of our financial reports, which could cause the price of our common stock to decline, and we may be subject to investigation or sanctions by the SEC.

If securities or industry analysts do not continue to publish research or reports about our business, or if they issue an adverse or misleading opinion regarding our stock, our stock price and trading volume could decline.

The trading market for our common stock is influenced by the research and reports that securities or industry analysts publish about us or our business. If analysts who cover us downgrade our common stock or publish inaccurate or unfavorable research about our business model or our stock performance, or if our results of operations fail to meet the expectations of analysts, the price of our common stock would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn might cause the price of our common stock and trading volume to decline.

System security vulnerabilities, data breaches, and cyber-attacks could compromise proprietary or otherwise sensitive information or disrupt operations, which could adversely affect Perpetua Resources' business, reputation, and stock price.

Information systems and other technologies, including those related to the Corporation's financial and operational management, and its technical and environmental data, are an integral part of the Corporation's business activities. Network and information systems related events, such as phishing attacks, computer hacking, cyber-attacks, computer viruses, worms or other destructive or disruptive software, process breakdowns, denial of service attacks, lost or misplaced data, programming errors, scams, burglary, human error, misdirected wire transfers, other malicious activities or any combination of the foregoing. We may also be adversely affected by power outages, natural disasters, terrorist attacks, or other similar events which could result in damages to the Corporation's property, equipment and data. These events also could result in significant expenditures to repair or replace damaged property or information systems and/or to protect them from similar events in the future.

We have experienced cybersecurity incidents but have not suffered any material adverse impacts to our business and operations as a result of such incidents. No security measure is infallible. Our facilities and systems, and those of our third-party service providers, have been and are vulnerable to adverse events. We may also identify previously undiscovered instances of security breaches or bad actors with present access to our systems.

Furthermore, any security breaches such as misappropriation, misuse, leakage, falsification, accidental release or loss of information contained in the Corporation's information technology systems including personnel and other data that could damage its reputation, trigger reporting or other requirements under material contracts and require the Corporation to expend significant capital and other resources to remedy any such security breach. Insurance held by the Corporation may mitigate losses, however, in any such events or security breaches may not be sufficient to cover any consequent losses or otherwise adequately compensate the Corporation for any disruptions to its business that may result, including loss or disruption of a material contract resulting from such breach. Insurance coverage may also be entirely unavailable. The occurrence of any such events or security breaches could have a material adverse effect on the business of the Corporation. In particular, a cybersecurity incident resulting in a security breach or failure to identify a security threat could disrupt our business and could result in the loss of sensitive, confidential information or other assets, as well as litigation including individual claims or class actions, regulatory enforcement, violation of privacy or securities laws and regulations, and remediation costs, all of which could materially impact our reputation, operations, or financial performance.

There can be no assurance that these events and/or security breaches will not occur in the future or not have an adverse effect of the business of the Corporation.

The COVID-19 pandemic may affect our operations.

The Corporation faces risks related to health epidemics/pandemics, and other outbreaks of communicable diseases, which could significantly disrupt its operations and may materially and adversely affect its business and financial conditions.

The Corporation's business could be adversely impacted by the effects of COVID-19 or other epidemics/pandemics. The extent to which COVID-19 impacts the Corporation's business, including its operations and the market for its securities, will depend on future developments, which are highly uncertain and cannot be predicted at this time. In particular, the spread of COVID-19 or any other pandemic could materially and negatively impact the Corporation's business including without limitation, employee health, workforce productivity, insurance premiums, ability to travel, the availability of industry experts and personnel, restrictions or delays to future drill and work programs and/or the timing to process drill and other metallurgical testing, and other factors that will depend on future developments beyond the Corporation's control, which may have a material and adverse effect on its business, financial condition and results of operations.

There can be no assurance that the Corporation's personnel will not be impacted by these epidemic/pandemic diseases and ultimately see its workforce productivity reduced and incur increased medical costs or insurance premiums due to these health risks. The extent to which COVID-19 and any other pandemic or public health crisis impacts the Corporation's business, affairs, operations, financial condition (including the Corporation's ability to raise funds), liquidity, availability of credit and results of operations will depend on future developments that are highly uncertain and cannot be accurately predicted.

Inflation could adversely impact our ability to control our costs, including our operating expenses and capital costs.

The U.S. inflation rate has been steadily increasing since 2021 and throughout much of 2022. Such inflationary pressures have resulted from supply chain disruptions caused by the COVID pandemic, increased demand, labor shortages and other factors, including the conflict between Russia and the Ukraine which began in late February 2022. Similar to other companies in our industry, we have experienced inflationary pressures on our operating costs - namely inflationary pressures have resulted in increases to the costs of our goods, services and personnel, which in turn, have caused our expenditures to rise. Although inflation rates started to stabilize in late 2022 and even decrease from the levels experienced earlier in the year, we are unable to accurately predict if such inflationary pressures and contributing factors will continue into 2023. To the extent elevated inflation remains, we may experience further cost increases for our operations, as well as increased labor costs. We cannot predict any future trends in the rate of inflation and a significant increase in inflation, to the extent we are unable to recover higher costs through higher commodity prices and revenues, would negatively impact our business, financial condition and results of operation.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties.

Summary Disclosure

The Corporation has only one material mining property, the Stibnite Gold Project, a formerly abandoned, brownfield mine site in rural Idaho, USA. We hold the Stibnite Gold Project through our wholly-owned subsidiary Idaho Gold Resources Company, LLC.

The Project consists of mining the Yellow Pine, Hangar Flats and West End deposits using conventional open pit methods, conventional processing methods to extract gold, silver and antimony, and on-site production of gold ("Au") and silver ("Ag") doré and an antimony ("Sb") concentrate. The Project also entails an extensive reclamation and restoration program for historical legacy impacts to the site including the recovery and reprocessing of historical tailings, restoration of fish passage during and after operations, relocation of historical mining wastes to engineered storage facilities, stream restoration, and reforestation of impacted areas. Some environmental work is currently in process under the ASAOC. This work is designed to improve water quality on the Project site and is expected to be completed prior to the Project's planned reclamation and restoration activities. The Corporation's plans for decommissioning the site include progressive and concurrent remediation, reclamation, and restoration activities, beginning at the start of construction and continuing beyond the operations phase, through Project reclamation and closure. We are currently undertaking an extensive permitting process for redevelopment and restoration of the Project.

Technical Report Summary

The disclosures in this *Item 2, Properties* regarding Perpetua Resources' 100% interest in the Stibnite Gold Project have been prepared in accordance with the mining property disclosure rules specified in S-K 1300. Except for subsequent events or as otherwise noted, the disclosure in this Annual Report on Form 10-K of a scientific or technical nature for the Stibnite Gold Project is derived from, and in some instances is an extract from, the Technical Report Summary, dated as of December 31, 2021, and amended as of June 6, 2022, which is included as Exhibit 96.1 of this Annual Report on Form 10-K. There are no material changes to the information presented in the TRS.

The TRS summarizes, as of December 31, 2021, in accordance with the mining property disclosure rules specified in S-K 1300, the information presented in the technical report titled "Stibnite Gold Project, Feasibility Study Technical Report, Valley County, Idaho" dated effective December 22, 2020 and issued January 27, 2021, which was prepared in accordance with mining property disclosure standards set forth in NI 43-101.

The TRS was filed by the Company on Form 8-K on EDGAR on June 8, 2022 and is included as Exhibit 96.1 to this Annual Report on Form 10-K. The 2020 Feasibility Study was filed on SEDAR on January 28, 2021. You should read the TRS as part of your review of the information in this Item 2. Properties.

Certain capitalized terms in this section not otherwise defined have the meanings ascribed to them in the TRS.

Information of a scientific or technical nature in this Annual Report has been approved by Christopher Dail, AIPG CPG #10596, Exploration Manager for Perpetua Resources Idaho, Inc. and a qualified person (as defined in NI 43-101 and as defined in S-K 1300).

Assumptions

Portions of the information presented in this Annual Report on Form 10-K and the information contained in the TRS rely on a number of estimates and assumptions, including estimates and assumptions which are inherently subject to significant scientific, business, economic and competitive uncertainties and contingencies that could be material should those assumptions be incorrect. These assumptions include, but are not limited to, certain assumptions as to capital costs, production rates, operating costs, recovery and timing of construction and production; assumptions that the current price and demand for gold and other metals will be sustained or will improve; assumptions that the equipment and personnel required for permitting, construction and operations will be available on a continual basis; there are no significant errors in calculations and information used in mineral resource and reserve estimates, there will be no unforeseen delays, unexpected geological or other effects, equipment failures, or significant permitting delays. For a description of the key assumptions, parameters and methods used to estimate mineral reserves and mineral resources included in this Annual Report on Form 10-K, as well as data verification procedures and a general discussion of the extent to which the estimates may be affected by any known environmental, permitting, legal, title, taxation, sociopolitical, marketing or other relevant factors, please review the TRS, which is included as an exhibit to this Annual Report on Form 10-K. See "*Risk Factors*" and "*Cautionary Note Regarding Forward-Looking Statements*" for a discussion of additional industry and business risks and assumptions.

TRS Highlights

The Stibnite Gold Project economics, as contemplated in the TRS, are summarized in the table below.

Component	Early Production Years 1-4	Life-of-Mine Years 1-15
Recovered Gold (2) Total	1,853 koz	4,238 koz
Recovered Antimony Total	74 million lbs	115 million lbs
Recovered Gold (2) Annual Average	463 koz/yr	297 koz/yr
Cash Costs(2,3) (Net of by-product credits)	$328/oz Au	$538/oz Au
All-in Sustaining Costs(2,3) (Net of by-product credits)	$438/oz Au	$636/oz Au
Initial Capital – including contingency	$1,263 million	

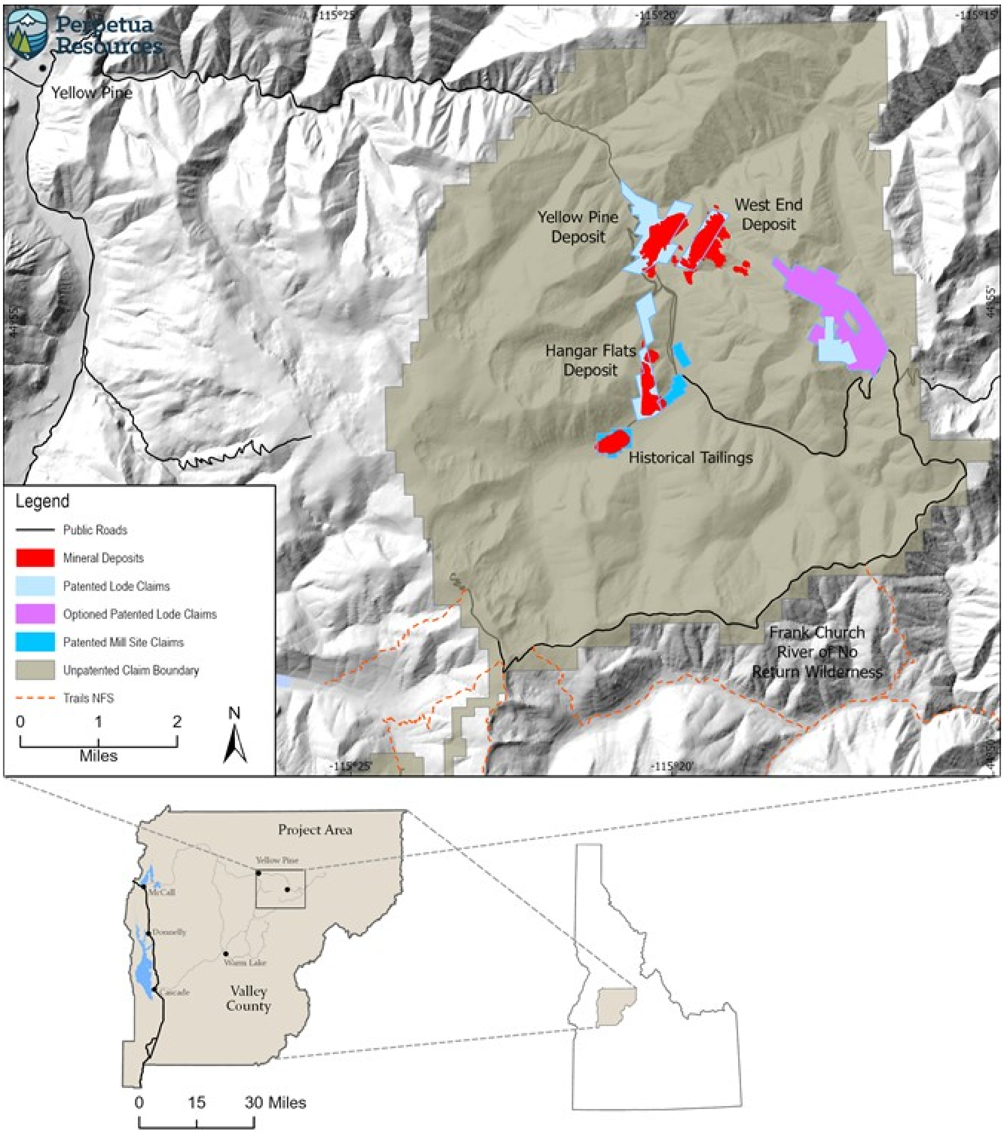
Notes:

(1) Base case prices US$1,600/oz gold, $20/oz silver and $3.50/lb antimony, Case C price based on metal selling prices of US$1,850/oz gold, $24/oz silver and $3.50/lb antimony, Post-Tax NPV at 5% discount rate.
(2) In this release, "M" = million, "k" = thousand, all amounts in US$, gold and silver reported in troy ounces ("oz").
(3) Cash costs and All-in Sustaining Costs are non-GAAP measures; see section *Item 2, Non-GAAP Measures*.
All numbers have been rounded in above table and may not sum correctly.
The TRS assumes 100% equity financing of the Project.

Property Description and Location

The Project location is in central Idaho, USA approximately one hundred (100) miles ("mi") northeast of Boise, Idaho, thirty-eight (38) mi east of McCall, Idaho, and approximately ten (10) mi east of Yellow Pine, Idaho. Mineral rights controlled by Perpetua Resources include patented lode claims, patented mill sites, unpatented federal lode mining claims, and unpatented federal mill sites and encompass approximately 28,480 acres (forty-five (45) square miles). The claims are 100% owned, except for twenty-seven (27) patented lode claims that are held under an option to purchase. The Project is subject to a 1.7% net smelter return royalty on gold only; there is no royalty on silver or antimony.

Stibnite Gold Project Location



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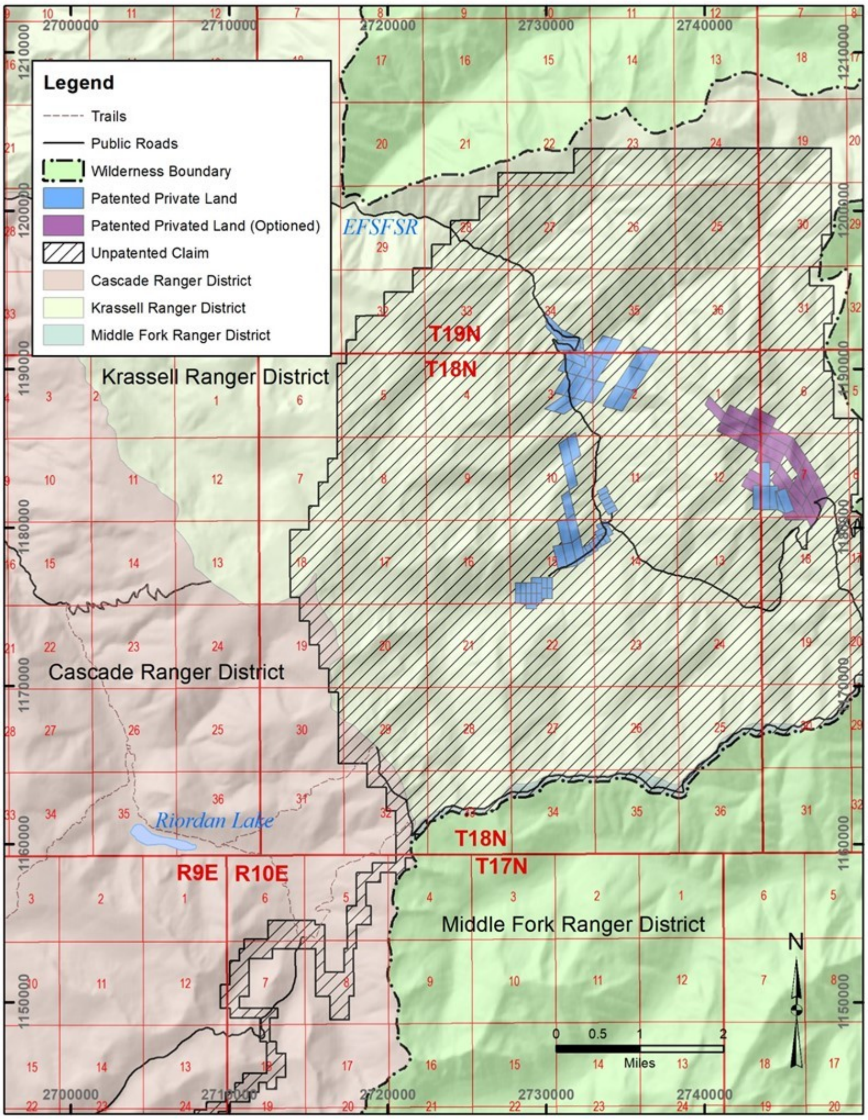
Land Status Map



Patented Lands

On June 11, 2009, a predecessor to SGC acquired and exercised an option to purchase ("OTP") the Meadow Creek group of nine patented lode claims totaling approximately 184 acres from Bradley Mining Co. ("Bradley").

A predecessor to IGRCLLC secured an OTP agreement from the J.J. Oberbillig Estate on June 2, 2009, to acquire 30 patented mill site claims totaling approximately 149 acres and six patented lode claims totaling approximately 124 acres. The Oberbillig OTP agreement was exercised and title to property rights were acquired on June 2, 2015. An associated transaction included the purchase and extinguishment of a 5% Net Smelter Return ("NSR") royalty to the Oberbillig estate covering certain lands within the Project area. Most of the mineralization constituting the West End Deposit is located within portions of these patented lode claims. Hecla Mining Company (Hecla) retains some surface rights on portions of six of the patented mill sites, but no mineral rights and IGRCLLC has a right to use the surface for the purposes of mining.

An OTP for patented lode mining claims covering portions of the Yellow Pine Deposit was conveyed to Perpetua Resources in 2011 by way of a company merger between a predecessor to IGRCLLC and a subsidiary of Vista Gold Corp. that was agreed to February 22, 2011. The OTP for the subject patented claims was exercised on November 28, 2012. As a result of the merger, the predecessor to IGRCLLC became a wholly owned subsidiary of Perpetua Resources. The Yellow Pine claim group includes 17 patented lode mining claims totaling approximately 301 acres and eight unpatented lode mining claims (included in the unpatented total below).

On April 28, 2011, a predecessor to SGC purchased 6 patented lode claims east of the Project area. This group of claims is referred to as the Fern claim group, totaling approximately 100 acres.

PATENTED CLAIMS

Valley County Parcel ID	Owner[5]	Number of Claims: Lode	Number of Claims: Millsite	Assessed Acres[4]	Assessed Hectares[4]
RP18N09E155300	IGRCLLC	—	16	80.00	32.37
RP18N09E020026	IGRCLLC	6	—	129.82	52.54
RP18N09E115495	IGRCLLC	—	14	53.57	21.68
RP14N05E074475[1]	IGRCLLC[1]	—	—	25.06	10.14
RP18N09E038995	IGRCLLC	4	—	81.63	33.03
RP18N09E108995	IGRCLLC	5	—	102.8	41.60
RP18N09E127345	IGRCLLC	6	—	99.87	40.42
RP18N09E030005	IGRCLLC	11	—	218.90	88.59
RP18N09E030020	IGRCLLC	6	—	81.17	32.85
RP18N09E12255	IGRCLLC [2]	6	—	89.40	36.18
RP18N10E071525	IGRCLLC [2]	2	—	38.95	15.76
RP18N09E18150	IGRCLLC [2]	7	—	139.19	56.33
RP18N09E018435	IGRCLLC [2]	4	—	80.23	32.47
RP18N09E013840	IGRCLLC [2]	8	—	136.01	55.04
	Totals	**65**	**30**	**1,357**	**549.00**

UNPATENTED CLAIMS

Owner	Claim Type	Number of Claims: Lode	Number of Claims: Millsite	Acres	Hectares
IGRCLLC	Unpatented lode and millsite claims	1,419	249	28,483	11,527

Notes:

1. *The Scott Valley parcel for the Stibnite Gold Logistics Facility is a 100% owned fee-simple parcel, that is approximately 25 acres, with no mineral rights.*
2. *IGRCLLC has an option to purchase (OTP), but no ownership of these parcels. The owner pays property taxes for these parcels until the OTP is exercised.*
3. *Does not include taxes paid on OTP properties, which are paid by the owner.*
4. *Not all values may sum due to rounding. Assessed acreage may not correspond exactly to surveyed acreage reported in text.*
5. *This table summarizes the mineral rights held by Perpetua Resources' wholly owned subsidiary, IGRCLLC.*

Unpatented Federal Lode Mining Claims and Unpatented Mill Site Claims

A subsidiary of a predecessor to IGRCLLC acquired 229 federal unpatented claims by purchase from previous owners in 2009 and 2011. These included 46 federal mill site claims and 183 federal unpatented lode mining claims. In addition to the purchased claims, IGRCLLC predecessors or subsidiaries acquired by staking an additional 36 federal unpatented lode mining claims in 2009, 217 lode claims in 2010 and 901 federal unpatented lode-mining claims in 2011, and one federal unpatented lode mining claim in 2012. An additional 126 unpatented lode claims were staked in 2015. Minor modifications and amended claim locations have occurred since original staking and/or acquisition.

In 2021, SGC merged with IGRCLLC becoming the sole surviving entity and landowner of patented and unpatented mining claims and mill sites and various optioned properties. In 2022, 53 of the Corporation's unpatented lode mining claims were relinquished and re-staked with 203 unpatented mill sites over areas non-mineral in character and suitable for mill sites should a development decision be made. Currently, IGRCLLC owns 1,419 unpatented lode mining and 249 mill sites totaling approximately 28,483 acres (11,527 hectares).

Maintenance of unpatented federal claims requires that IGRCLLC provide a list of claims and serial numbers to the Bureau of Land Management ("BLM") along with annual maintenance fees, currently $165 for each lode-mining claim or mill site on or before September 1st each year. This was completed for the most recent filing year. There is no underlying royalty on these federal lode-mining claims and mill sites other than the Franco-Nevada Corporation ("Franco-Nevada") royalty. None of the claims are subject to back-in rights; however, Franco-Nevada holds a right of first refusal should mining claims, mill sites or other mineral properties be relinquished.

Stibnite Gold Logistics Facility

On September 9, 2016, IGRCLLC agreed to purchase an undeveloped 25-acre property in fee simple from private interests. The property is situated in Section 7, Township 14N, Range 5E, Boise Meridian. The sale was closed on October 26, 2016. The property's metallic and non-metallic mineral rights, apart from aggregate materials needed for construction purposes on the property, were retained by the previous owners.

The property, in an area known locally as Scott Valley, has frontage on the Cascade-Warm Lake Highway and was purchased to serve as a project logistics facility. The agreement provides for maintenance of certain pre-existing rights-of-way, easements and rights, none of which would be expected to inhibit use of the property for the intended purposes. IGRCLLC applied for a Conditional Use Permit from the Valley County Planning and Zoning Commission that was granted on October 5, 2020.

Royalties, Option Agreements and Encumbrances

Option Agreements

On May 3, 2011, a predecessor to SGC entered into an option to purchase ("OTP") 27 patented lode claims totaling approximately 485 acres from the J.J. Oberbillig Estate (the Cinnabar option claims). This agreement was modified in an Amended and Restated Real Property Purchase Agreement effective December 1, 2016. The amended agreement also includes an option on a Right of First Refusal to purchase the surface rights associated with portions of certain patented mill site claims that J.J. Oberbillig Estate sold to Hecla under a Real Estate Purchase and Sale Agreement effective December 30, 2002. The agreement also includes granting of a renewable easement for a communications tower. Perpetua Resources is obligated to make payments to maintain the OTP to obtain title to these claims. The agreement includes an option to extend up to 10 years after the original term of the agreement expires, through 2037.

On December 10, 2019, a Perpetua Resources subsidiary entered into an option agreement to purchase 3.74 acres from private interests for an electrical switching station site. The OTP has biannual payments of US$2,500 through 2033.

Royalty Agreement

Effective May 9, 2013, Perpetua Resources and its subsidiaries granted a perpetual 1.7% NSR royalty on future gold production from the Project properties to Franco Nevada, subject to adjustment based on final permitted capacity. The royalty does not apply to production of antimony and silver. The royalty agreement applies to all patented and unpatented mineral claims, except for the Cinnabar option claims where Perpetua Resources holds an OTP. Under the agreement, Franco Nevada has the right, but not the obligation, to extend the property subject to the royalty to the Cinnabar option claims upon notice that the OTP is exercised by Perpetua.

Geologic Setting and Mineralization

Bedrock in the region can be subdivided into the pre-Cretaceous metasedimentary "basement," the Cretaceous Idaho Batholith, Tertiary intrusions and volcanics, and Quaternary unconsolidated sediments and glacial materials. The SGP is situated along the eastern edge of the Idaho Batholith, on the western edge of the Thunder Mountain caldera complex and within the Central Idaho Mineral Belt.

Large, north-south striking, steeply dipping structures exhibiting pronounced gouge and multiple stages of brecciation occur in the district and are often associated with east-west and northeast-southwest trending splays and dilatant structures.

The Yellow Pine and Hangar Flats deposits are hosted primarily by intrusive phases of the Idaho Batholith along the Meadow Creek Fault Zone. The West End Deposit is hosted primarily by Neoproterozoic to Paleozoic metasedimentary rocks of the Stibnite roof pendant along the West End Fault Zone.

Mineralization and alteration in the district are associated with multiple hydrothermal alteration events occurring through the Paleocene and early Eocene epochs. Main-stage gold mineralization and associated potassic alteration typically occurs in structurally prepared zones. The gold is associated with very fine grained disseminated arsenical pyrite and arsenopyrite to a lesser extent. The gold almost exclusively exists in solid solution in these minerals. Antimony mineralization occurs primarily as the mineral stibnite. Additional gold mineralization affecting rocks of the Stibnite roof pendant (West End deposit) is associated with epithermal quartz-adularia-carbonate veins.

Deposits of the district are not readily categorized based on a single generic deposit model due to complexities associated with multiple overprinting mineralization events and uncertainties regarding sources of mineralizing hydrothermal fluids.

Permits

The Project is subject to formal review under NEPA, which is still ongoing. Following the release of a DEIS on August 14, 2020, followed by a public comment period, the USFS published a SDEIS on October 28, 2022 for a 75-day public comment period which closed on January 10, 2023. The Corporation expects that a final EIS and draft Record of Decision will follow in due course. Work on other required ancillary permits and management plans continues.

Exploration

The district has been the subject of exploration and development activities for nearly 100 years, yet much of the area remains poorly explored due to its remote location, poor level of outcrop and extensive glacial cover. Perpetua Resources has completed extensive exploration work over the last decade that has included: geophysics; rock, soil and stream sampling and analysis; geologic mapping; mineralogical and metallurgical studies; and drilling.

This newer data has been integrated with datasets from previous operators and provides a comprehensive toolkit for future exploration. These efforts have led to the identification of over 75 prospects with varying levels of target support. These prospective areas include targets within, under, and adjacent to existing deposits; bulk mineable prospects along known or newly identified mineralized trends; high grade underground targets and early-stage greenfield prospects and conceptual targets based on geophysics or geologic inference.

Exploration targets include conceptual geophysical targets, geochemical targets from soil, rock and trench samples, and results from widely spaced drill holes; as a result, the potential size and tenor of the targets are conceptual in nature. There has been insufficient exploration to define mineral resources on these prospects and this data may not be indicative of the occurrence of a mineral deposit. Such results do not provide assurance that further work will establish sufficient grade, continuity, metallurgical characteristics, and economic potential to be classed as a category of mineral resource. Mineral resources are not mineral reserves and do not have demonstrated economic viability.

The Project area, including the three main deposits, has been drilled by numerous operators, totaling 793,769 ft in 2,723 drill holes, of which Perpetua Resources drilled 637 holes totaling over 344,465 ft since 2009. Pre-Perpetua Resources drilling was undertaken by a wide variety of methods and operators while Perpetua Resources employed a variety of drilling methods including core, reverse circulation, auger, and sonic throughout the district, but with the primary method being core. Operators who conducted significant exploration and/or mineral extraction during this era included: United Mercury Mines. Yellow Pine Company, Bradley Mining Company, Louisiana Land and Exploration Company, Canadian Superior Mining (U.S.) Ltd., El Paso Oil and Gas, Rancher's Exploration Company, Twin Rivers Exploration, MinVen Corporation, Pioneer Metals Corporation, Hecla Mining Company, Barrick Gold Corporation (formerly American Barrick Resources), Stibnite Mine Inc., and Dakota Mining Company.

No exploration drilling was completed during the reporting period.

Mineral Resources and Mineral Reserves Estimates

The tables below present the estimated Mineral Resources and Mineral Reserves for the Project at December 31, 2022 presented in accordance with S-K 1300. There were no changes in reported Mineral Resources and Mineral Reserves reported for the years ended December 31, 2021 and 2022. The Qualified Person has reviewed the Mineral Resources and Mineral Reserves described herein and is of the opinion that there are no material changes to the Mineral Resources and Mineral Reserves as compared to the information presented in the TRS and that the material assumptions set forth in the TRS are current as of December 31, 2022.

Mineral Resource Estimates

The following table presents the estimated Indicated and Inferred Mineral Resources for the Project at December 31, 2022 based on $1,500/oz gold price and are presented exclusive of Mineral Reserves in accordance with S-K 1300. There were no changes to Mineral Resources since December 31, 2021.

Consolidated Mineral Resource Statement for the Stibnite Gold Project at December 31, 2022, based on $1,500/oz gold, EXCLUSIVE OF RESERVES:

Classification	Tonnage (000s)	Gold Grade (g/t)	Contained Gold (000s oz)	Silver Grade (g/t)	Contained Silver (000s oz)	Antimony Grade ()%	Contained Antimony (000s lbs)
Indicated							
Yellow Pine	8,598	1.11	307	1.44	397	0.018	3,405
Hangar Flats	19,803	1.30	825	3.34	2,128	0.146	63,673
West End	15,133	0.76	369	0.91	445	—	—
Historical Tailings	0	—	0	—	0	—	0
Total Indicated	43,534	1.07	1,501	2.12	2,970	0.07	67,078
Inferred							
Yellow Pine	8,021	0.85	219	0.59	153	0	62
Hangar Flats	17,021	1	548	2.3	1,259	0.09	32,146
West End	26,895	0.97	837	1.06	918	0	0
Historical Tailings	191	1.13	7	2.64	16	0.16	662
Total Inferred	52,128	0.96	1,611	1.4	2,345	0.03	32,870

Notes:

(1) Mineral Resources are reported in relation to a conceptual pit shell to demonstrate potential for economic viability; mineralization lying outside of these pit shells is not reported as a Mineral Resource. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. These Mineral Resource estimates include Inferred Mineral Resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is also no certainty that these Inferred Mineral Resources will be converted to the Indicated category through further drilling, or into Mineral Reserves once economic considerations are applied. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.

(2) Open pit sulfide Mineral Resources are reported at a cut-off grade of 0.40 g/t Au and open pit oxide Mineral Resources are reported at a cut-off grade of 0.35 g/t Au.

(3) Mineral Resources are reported in place (point of reference).

(4) All numbers have been rounded in above table and may not sum correctly.

Mineral Reserve Estimates

The following table presents the estimated Mineral Reserves for the Project at December 31, 2022 based on $1,600/oz gold price and presented in accordance with S-K 1300. There were no changes to Mineral Reserves since December 31, 2021. Under S-K 1300, a Proven Mineral Reserve is the economically mineable part of an indicated and, in some cases, a measured mineral resource and a Probable Mineral Reserve is the economically mineable part of a measured mineral resource and can only result from conversion of a measured mineral resource.

Mineral Reserves Summary (Metric Units) at December 31, 2022 based on $1,600/oz gold:

Deposit Metric Units	Tonnage (kt)	Average Grade Gold (g/t)	Antimony ()%	Silver (g/t)	Total Contained Metal Gold (t)	Antimony[3] (t)	Silver (t)
Yellow Pine							
Low Sb Sulfide –Probable	37,615	1.69	0.009	1.56	63.7	3,565	58.5
High Sb Sulfide –Probable	10,232	2.04	0.460	4.69	20.9	47,064	48.0
Yellow Pine Probable Mineral Reserves	**47,847**	**1.77**	**0.106**	**2.23**	**84.5**	**50,629**	**106.5**
Hangar Flats							
Low Sb Sulfide – Probable	5,167	1.34	0.018	1.65	6.9	954	8.5
High Sb Sulfide – Probable	3,095	1.92	0.369	4.85	5.9	11,407	15.0
Hangar Flats Probable Mineral Reserves	**8,262**	**1.56**	**0.150**	**2.85**	**12.9**	**12,361**	**23.5**
West End [1]							
Oxide – Probable	4,749	0.54	—	0.87	2.6	—	4.1
Low Sb Sulfide – Probable	15,242	1.33	—	1.30	20.2	—	19.7
Transitional – Probable	25,839	1.03	—	1.49	26.6	—	38.5
West End Probable Mineral Reserves	**45,830**	**1.08**	**—**	**1.36**	**49.3**	**—**	**62.3**
Historical Tailings [1]							
Low Sb Sulfide – Probable	1,832	1.16	0.166	2.86	2.1	3,036	5.2
High Sb Sulfide – Probable	855	1.16	0.166	2.86	1.0	1,417	2.4
Historical Tailings Probable Mineral Reserves	**2,687**	**1.16**	**0.166**	**2.86**	**3.1**	**4,453**	**7.7**
Probable Mineral Reserves							
Oxide – Probable	4,749	0.54	—	0.87	2.6	—	4.1
Low Sb Sulfide –Probable	59,856	1.55	0.013	1.54	92.9	7,555	92.0
High Sb Sulfide –Probable	14,181	1.96	0.422	4.61	27.8	59,888	65.4
Transitional – Probable	25,839	1.03	—	1.49	26.6	—	38.5
Total Probable Mineral Reserves [2]	**104,625**	**1.43**	**0.064**	**1.91**	**149.9**	**67,443**	**200.0**

Notes:

(1) Historical Tailings ore type classification is proportional to the pit-sourced mill feed during Historical Tailings processing.

(2) Metal prices used for Mineral Reserves: $1,600/oz Au, $20.00/oz Ag, $3.50/lb Sb.

(3) Antimony values are reported only for ore scheduled in the mine plan that is classified as High Sb Sulfide.

Mineral Reserves are reported from the reference point of delivery to the processing plant. These reserves are subject to variable metallurgical recoveries for gold, silver, and antimony depending on the host rock, process flowsheet, and product (i.e. doré bullion or antimony concentrate). The average recoveries into bullion are 87% for gold and 13% for silver. The average recoveries into antimony concentrate are 68% for antimony, 0.1% for gold, and 2% for silver.

All numbers have been rounded in above table and may not sum correctly.

Mining Methods

The mine plan developed for the Project incorporates the mining of the three in situ deposits: Yellow Pine, Hangar Flats, and West End and their related development rock; and the re-mining of Historical Tailings along with its cap of spent heap leach ore. The general sequence of open pit mining would be Yellow Pine deposit first, Hangar Flats deposit second, and West End deposit last. This sequence generally progresses from mining highest value ore to lowest value ore and accommodates the sequential backfilling the Yellow Pine and Hangar Flats open pits with material mined from West End open pit. Lower grade ore extracted during mining of the three pits is stockpiled and then processed during the operating life of the mill. The spent ore that overlies the Historical Tailings would be used as tailings storage facility ("TSF") construction material and is treated as stripping. Most development rock would be sent to one of five destinations: the TSF embankment, the TSF buttress, the Yellow Pine pit as backfill, the Hangar Flats pit as backfill, or the Midnight area within the West End pit as backfill. The Historical Tailings would be hydraulically transferred to the process plant during the first four years of operation, concurrent with mining ore from the Yellow Pine open pit.

Mining at the SGP would be accomplished using conventional open pit hard rock mining methods with a production fleet consisting of two 28-yd3 hydraulic shovels, one 28-yd3 wheel loader, and a fleet of approximately eighteen 150 ton haul trucks. Mining is planned to deliver 7.30 Mt of ore to the crusher per year (nominally 20 kt per day) and approximately 22.1 Mt of development rock per year to DRSFs. Pre-stripping the open pits would begin two years prior to ore processing and open pit mining would continue until year 12 of operation. Once open pit mining is completed, the mining fleet will continue to provide ore to the mill from ore stockpiles until approximately the end of the first quarter in year 15. A total of 102 Mt of ore would be mined from the three open pits and an additional 2.7 Mt of historic tailings would be mined. Approximately 254 Mt of development rock would be mined from the three open pits for a total of 356 Mt mined from the open pits and an average strip ratio (waste:ore) of 2.5.

Long-term lower-grade ore stockpiles have been incorporated into the PFS mine plan located for the most part within the footprint of the TSF buttress, thereby minimizing their incremental disturbance. The primary benefits to adding ore stockpile capacity is increased potential to optimize process ore feed value throughout the mine life, improved utilization of the Mineral Resource, reduced peak water treatment needs, reduced development rock tonnage and associated mining impacted water management. The stockpiling strategy is particularly significant during the first half of the mine life when Yellow Pine high value ore is mined at a rate greater than process plant throughput capacity. If stockpile capacity is not available, either the period-based cut-off value must increase resulting in ore converted to waste, or the mining rate reduced to align with process plant throughput capacity resulting in deferred access to high-value ore deeper in the open pit. The addition of long-term ore stockpiles allows for relatively high value ore mined from Yellow Pine open pit to be stockpiled and made available to process when lower value ore is being mined in West End open pit.

Recovery Methods

The process flowsheet for most of the Yellow Pine, Hangar Flats, and West End material uses bulk sulfide flotation to maximize recovery of gold to a sulfide concentrate amenable to treatment by pressure oxidation for materials assaying less than 0.1% antimony. High antimony materials would be first subject to a selective antimony flotation process, thereby producing a shippable antimony concentrate, with a gold-bearing bulk sulfide rougher concentrate to be floated from the antimony flotation tailings. Some of the oxidized West End ores are more transitional or free milling in nature, and an ore leaching process was developed to treat these materials. Testing was also conducted on samples of the historical (Bradley) tailings. This work showed the historical tailings could be processed using the same flowsheet as, and most likely as a blend with, fresh sulfide ores.

Projected gold flotation recoveries for low-antimony materials to a concentrate assaying 6.5% sulfur are estimated at 93.8% for Yellow Pine and 92.1% for Hangar Flats. Silver recoveries are estimated as 90.1% for Yellow Pine and 89.1% for Hangar Flats. Gold and silver flotation recoveries are independent of gold or sulfur grade. For high-antimony materials from the Yellow Pine deposit, gold misplacement to the antimony concentrate and overall gold recoveries to POx are functions of pyritic sulfur grade and gold recoveries are estimated to range from 83.6% to 95.5%. Constant gold and silver recoveries are projected for Hangar Flats high-antimony material at 89.7% for gold and 43.2% for silver. West End sulfide material is highly refractory while transition material has a significant free milling gold content. Sulfide material will be processed by flotation, concentrate POx and cyanide leaching of the concentrate; transition material will be treated similarly, however the flotation tailings will also be leached; oxide materials will just be leached.

Pressure oxidation testing results demonstrated that neutralization of acid inside the autoclave, or "in-situ acid neutralization" ("ISAN") facilitates stabilization of arsenic in the POx residue. Neutralization of acid inside the autoclave was accomplished by adding ground limestone in the POx feed to control free acid and sulfate concentrations and limit the formation of jarosite and basic iron sulfates. Higher ferric concentrations available for scorodite formation and lower sulfate concentrations were found to inhibit pitticite (an unstable arsenic compound) formation. However, subsequent environmental geochemical testing completed on commingled flotation and detoxified cyanide leach tailings from the pilot plant indicated that arsenic destabilized at some point downstream of the POx process. Further ISAN POx tests with a terminal free acid of 8 to 13 mg/L of H2SO4, atmospheric arsenic precipitation, and a two-step neutralization procedure at an elevated temperature (92°C) by progressively adding limestone to achieve a pH of approximately 2 with a retention time of 4 to 5 hours produced a stable scorodite precipitate.

The POx testing confirmed consistent gold recoveries in the 96.5-99.0% range.

The Project's process plant has been designed to process sulfide, transition and oxide material from the Yellow Pine, Hangar Flats, and West End deposits. The processing facility is designed to treat an average of 20,000 t/d, or 7.3 Mt/y. Additionally, the Historical Tailings would be reprocessed early in the mine life to recover precious metals and antimony, and to provide space for the TSF embankment and buttress.

The process operations include crushing, grinding, antimony and gold flotation, pressure oxidation, POx leaching and carbon-in-pulp ("CIP") recovery, cyanide detoxification, carbon handling and pressure stripping, precious metal electrowinning, mercury retort removal, and doré bar production. Auxiliary operations include a plant to supply oxygen to the autoclave and mining, crushing, grinding, and calcining to provide limestone and lime for neutralization and pH adjustment for the process. A leaching, CIP recovery, and detoxification process is planned for late in the mine life to process crushed and ground oxide material and recover gold from the tailings of transitional (mixed oxide-sulfide) material. Two finished products from the Stibnite Gold Project ore processing facility will be doré bars and antimony-silver concentrate.

Infrastructure

The Project will require upgrades to existing offsite infrastructure such as roads and power supply, as well as onsite and offsite infrastructure additions such as worker accommodations, water management systems, and tailings management systems.

Site Access

The site is currently accessed by the Stibnite Road, National Forest (NF-412), from the village of Yellow Pine, with three alternative routes up to that point. Alternative access via the Burntlog Route was developed over several other possible alternatives because it provides safer year round access for mining operations, reducing the proximity of roads to major fish-bearing streams, and this route respects the advice and privacy of community members close to the Project location. The route originates from the intersection of Highway 55 and Warm Lake Road and is approximately 71 miles long. The route consists of 34 miles of existing highway (Warm Lake Road), 23 miles of upgraded road, and 14 miles of new road. The 37 miles of new and upgraded road has a design speed of 20 mph, maximum 10% grade, a 21 foot width, and intermediate-sized tractor trailer loading criteria. A maintenance facility along the route is designed for a location on the southern section.

A through-site public access route will replace the current access through the SGP site during mine operations. A new 12-foot-wide gravel road is planned to provide public access from Stibnite Road to Thunder Mountain Road through the mine site.

Logistics Facility

The offsite administrative offices, transportation hub, warehousing and assay laboratory needed for the Project, referred to as Stibnite Gold Logistics Facility ("SGLF"), will be located on private land in Valley County, with easy access to State Highway 55. The SGLF will include offices for managers, safety and environmental services, human resources, purchasing and accounting personnel. Operating supplies for the mine will be staged and consolidated at the SGLF to reduce traffic to the site.

Power Supply and Transmission

Grid power planned for the Project needs to be upgraded to support the 50- to 60-megawatt load including upgrading approximately 63 miles of existing powerlines to 138 kV and approximately 9 miles of new 138 kV line. The 138-kV line would be routed to the Project's main electrical substation where transformers would step the voltage down to the distribution voltage of 34.5 kV.

Worker Accommodations

A new worker housing facility (camp) is planned approximately 2 miles south of the ore processing plant area to provide accommodations for most of the construction workforce and for the operations workforce. Leased accommodation units are planned during peak construction activity and would be demobilized following construction since the peak construction accommodation requirements (approximately 1,000 workers) are much greater than the operations requirements of approximately 350 workers on the site.

Water Management

Perpetua Resources has planned a water management system that protects or improves water quality in Project-area streams and provides water for ore processing, fire protection, exploration activities, surface mining (dust control), and potable water needs.

The key water management consideration for the Project site is the large amount of snowmelt runoff during the months of April through June, making spring melt the critical time for water management, storage, and treatment. Surface water that has the potential to introduce mining- and process-related contaminants (contact water) is kept separate from surface water that originates from undisturbed, uncontaminated ground (non-contact water). This is accomplished by diverting clean water around mine facilities and collecting and reusing, evaporating, or treating and discharging contact water.

The water needed for ore processing is planned to come from meteoric and tailings consolidation water reclaimed from the TSF, water from pit dewatering, contact water, groundwater wells, and a surface intake near the upstream portal of the East Fork South Fork Salmon River ("EFSFSR") diversion tunnel. Contact water from the pits, stockpiles, TSF buttress, truck shop, ore processing facilities, and legacy materials exposed during construction would be collected in lined ponds or in-pit sumps for later use in ore processing, dust control, or treatment for discharge. Excess dewatering water not used for ore processing would be treated, if required, and discharged to a surface outfall.

Major water diversions include construction of a tunnel and fishway to divert the EFSFSR and provide fish passage around the Yellow Pine pit, and surface diversions of Meadow Creek at the TSF, TSF Buttress, and Hangar Flats pit.

Tailings Management

The Project is projected to produce approximately 120 million tons of tailings solids. The tailings would contain trace amounts of cyanide and metals (including arsenic and antimony), so a fully lined containment facility utilizing a composite liner is proposed to isolate the tailings and process water.

The TSF would consist of a rockfill embankment, a fully lined impoundment, and appurtenant water management features including a surface diversion of Meadow Creek and its tributaries around the facility. A rockfill buttress abutting the TSF embankment would substantially enhance embankment stability. Historical spent heap leach ore would be reused in TSF construction, in locations isolated from interaction with water, but the majority of the rockfill would be development rock sourced from the open pits. Design criteria were established based on the facility size and risk using applicable dam safety and water quality regulations and industry best practice for the TSF embankment on a standalone basis; the addition of the buttress substantially increases the safety factor for the design to at least double the minimum requirements. The TSF impoundment, embankment, and associated water diversions would occupy approximately 420 acres at final buildout, with an approximately 475-foot ultimate height.

Capital and Operating Costs

Capital expenditures or capital costs ("CAPEX") and operating expenditures or operating costs ("OPEX") estimates were developed based on third quarter 2020, un-escalated U.S. dollars. Vendor quotes were obtained for all major equipment and operating consumables. Most costs were developed from first principles, although some were estimated based on factored references and experience with similar projects elsewhere. Reclamation financial assurance costs are not included in the capital costs. Additional assumptions that were used to estimate CAPEX are presented in the TRS.

Capital Costs

The Project CAPEX estimate includes four components: (1) the initial CAPEX to design, permit, pre-strip, construct, and commission the mine, plant facilities, ancillary facilities, utilities, operations camp, and pre-production on and off site restoration and environmental mitigation; (2) the sustaining CAPEX for facilities expansions, mining equipment replacements, expected replacements of process equipment and ongoing concurrent restoration and environmental mitigation activities during the operating period; (3) working capital to cover delays in the receipts from sales and payments for accounts payable and financial resources tied up in inventory; and (4) closure CAPEX to cover post operations reclamation and restoration and water treatment costs. Initial and working capital are the two main categories that need to be available to construct the Project.

The CAPEX estimate includes direct mining equipment and pre-stripping costs, process plant costs, on-site infrastructure such as the TSF and the operations camp, and off-site infrastructure such as the power transmission line, the mine access road, the SGLF, and reclamation and closure costs. The initial CAPEX includes indirect costs for detailed design and engineering, land acquisition, some environmental mitigation, and other costs. Initial CAPEX also includes an estimate of contingency based on the accuracy and level of detail of the cost estimate. The purpose of the contingency provision is to make allowance for uncertain cost elements that may occur but are not included in the cost estimate. These cost elements include uncertainties concerning completeness, accuracy and characteristics or nature of material takeoffs, accuracy of labor and material rates, accuracy of labor productivity expectations, and accuracy of equipment pricing. The CAPEX estimates are considered to have an accuracy range of -10% to +15%.

The table below provides a summary of CAPEX estimates for the Project.

Area	Detail	Initial CAPEX ($000s)	Sustaining CAPEX ($000s)	Closure CAPEX ($000s)(1)	Total CAPEX ($000s)
Direct Costs	Mine Costs	84,019	118,968	—	202,987
	Processing Plant	433,464	49,041	—	482,505
	On-Site Infrastructure	190,910	83,892	—	274,802
	Off-Site Infrastructure	115,940	—	—	115,940
Indirect Costs		232,684	—	—	232,684
Owner’s Costs, First Fills, & Light Vehicles		38,351	—	—	38,351
Offsite Environmental Mitigation Costs		14,397	—	—	14,397
Onsite Mitigation, Monitoring, and Closure Costs		3,474	23,484	98,052	125,010
Total CAPEX without Contingency		**1,113,239**	**275,385**	**98,052**	**1,486,677**
Contingency		149,708	20,354	1,244	171,306
Total CAPEX with Contingency		**1,262,948**	**295,739**	**99,296**	**1,657,982**

Notes:

(1) Closure assumes self-performed closure costs, which will differ for those assumed for financial assurance calculations required by regulators.

(2) All numbers have been rounded in above table and may not sum correctly.

Operating Costs and All-In Costs

The Project OPEX estimate includes mine operating costs, process plant operating costs, and general and administrative ("G&A") costs. Cash costs, expressed in dollars per short ton ($/st) milled or dollars per troy ounce of gold ($/oz Au) produced, are typically expressed before and after by-product credits (from antimony concentrate sales). Total cash costs include smelting and refining charges, transportation charges, and royalties. The All-In Sustaining Costs ("AISC") and the All-In Costs ("AIC") include non-sustaining CAPEX, and closure and reclamation CAPEX, respectively. A summary of these Project costs is presented below. Assumptions that were used to estimate OPEX are presented in the TRS.

	Years 1-4		LOM	
Total Production Cost Item	**($/st milled)**	**($/oz Au)**	**($/st milled)**	**($/oz Au)**
Mining	9.71	156	8.22	205
Processing	13.13	211	12.76	318
G&A	3.54	57	3.43	85
Cash Costs Before By-Product Credits(1)	**26.38**	**424**	**24.41**	**608**
By-Product Credits	(5.99)	(96)	(2.81)	(70)
Cash Costs After By-Product Credits(1)	**20.40**	**328**	**21.60**	**538**
Royalties	1.69	27	1.09	27
Refining and Transportation	0.46	7	0.24	6
Total Cash Costs(1)	**22.54**	**362**	**22.94**	**571**
Sustaining CAPEX	4.64	75	2.83	70
Salvage	—	—	(0.26)	(6)
Property Taxes	0.05	1	0.04	1
All-In Sustaining Costs(1)	**27.23**	**438**	**25.54**	**636**
Reclamation and Closure(2)	—	—	0.95	24
Initial (non-sustaining) CAPEX(3)	—	—	11.65	290
All-In Costs	**27.23**	**438**	**38.14**	**950**

Notes:

(1) Cash costs, All-in Sustaining Costs, are non-GAAP measures; see section *Item 2, Non-GAAP Measures*, below.

(2) Defined as non-sustaining reclamation and closure costs in the post-operations period.

(3) Initial Capital includes capitalized preproduction.

(4) All numbers have been rounded in above table and may not sum correctly.

Mineral Resource and Reserve Internal Controls

Perpetua Resources' field work on the Project from 2009 to 2015, including drilling, was carried out under the supervision of Christopher Dail, CPG and Richard Moses, CPG, who were Perpetua Resources' senior geologists responsible for certain aspects of the programs during the periods they were employed by Perpetua Resources. Field work, including drilling, completed in 2015-2017 was carried out under supervision of Kent Turner, independent senior geology consultant and SME-Registered Member, and Austin Zinsser, Perpetua Resources' Senior Resource Geologist and SME-Registered Member. The general mineral resource estimation methodology for all deposits involved the following procedures:

- generation of updated geological models and review of structural controls on mineralization;
- database verification and validation;
- exploration data analysis, compositing and evaluation of outliers;
- construction of estimation domains for gold, antimony and silver;
- spatial statistics and geostatistical analysis;
- block modeling and grade interpolation;
- mineral resource classification and validation;
- assessment of "reasonable prospects for eventual economic extraction;" and
- preparation of the mineral resource statement.

Quality Assurance/Quality Control program results do not indicate any problems with the analytical programs. Independent data audits have been conducted and indicate that the sample collection and database entry procedures are acceptable. All core samples have been catalogued and stored in designated areas.

Mineral resources and mineral reserves are estimates that are imprecise and depend upon geologic interpretation and statistical inferences drawn from drilling and sampling analysis, which may prove to be unreliable. See *Risk Factors – "Perpetua Resources' mineral resource and mineral reserve estimates may not be indicative of the actual gold that can be mined.*"

Non-GAAP financial measures

To provide investors with additional information in connection with our economic analysis as determined in accordance with accounting principles generally accepted in the United States of America ("GAAP"), we disclose certain projected non-GAAP financial measures. The projected non-GAAP financial measures include Cash Costs and All-in Sustaining Costs estimates and related calculations.

Cash Cost and All-in Sustaining costs (AISC)

Cash Costs is a non-GAAP metric defined as the sum of cash operating costs (mining, processing, G&A), by-product credits, refining and transportation costs and royalties and is used to evaluate the Company's future operating performance and provide visibility into the economics of our future mining operations.

All-in Sustaining Costs (AISC) is a non-GAAP metric defined as the sum of cash costs (from above), sustaining capital costs and non-revenue-based taxes (i.e. property tax) and is used to evaluate the Company's future operating performance and the ability to generate cash flow from operations.

We believe the projected non-GAAP financial measures included in this Annual Report on Form 10-K provide additional meaningful comparisons between the Company's economic analysis and its peer companies. These projected non-GAAP financial measures are not historical measures of financial performance and are not presented in accordance with GAAP. Therefore, these measures should not be considered in isolation or as an alternative or superior to GAAP measures. You should be aware that our presentation of these measures may not be comparable to similarly-titled measures used by other companies. The projected non-GAAP measures included in this presentation cannot be reconciled to comparable GAAP measures without unreasonable effort.

Item 3. Legal Proceedings.

The Corporation and its subsidiaries are parties to an ongoing legal proceeding with the Nez Perce Tribe for alleged violations of the CWA related to historical mining activities. In August 2019, the Nez Perce Tribe filed suit in the United States District Court for the District of Idaho and the Corporation promptly filed a motion to dismiss and, in the alternative, a motion to stay the litigation. Both motions were denied. Subsequently, the Corporation filed an answer denying liability which, later, the court allowed the Corporation to amend and file a third-party complaint against the Forest Service. The Corporation also filed a separate CWA citizen suit against the Forest Service alleging the point source discharges, as alleged by the Nez Perce Tribe in its complaint, were occurring on lands owned and controlled by the United States. Pursuant to the terms of the voluntary ASAOC executed with the U.S. EPA and the United States Department of Agriculture, the Corporation agreed to dismiss its pending actions against the Forest Service. The remaining parties to the ongoing legal proceeding agreed to stay the litigation and explore Alternative Dispute Resolution ("ADR") options through court-ordered mediation. The stay has been extended on subsequent occasions, and a request to extend the stay through June 30, 2023 was requested by jointly by the Corporation and the Nez Perce Tribe during a February 21, 2023 status conference and subsequently ordered by the court on the same day.

Certain of the Corporation's property interests in the Project are also subject to existing judicial consent decrees due to Perpetua's acquisition of several patented lode mining claims and mill sites which covers environmental liability and remediation responsibilities. Under the consent decrees, Perpetua is required to grant access to certain site areas by regulatory agencies and allow remediation activities to proceed if necessary and preserve the integrity of previous response actions.Several of the Corporation's patented claims in the Hangar Flats and Yellow Pine properties are also subject to a consent decree which requires Perpetua to cooperate with the U.S. EPA and the USFS to implement appropriate response activities.

Item 4. Mine Safety Disclosures.

Pursuant to Section 1503(a) of the Dodd-Frank Act, issuers that are operators, or that have a subsidiary that is an operator, of a coal or other mine in the United States are required to disclose specified information about mine health and safety in their periodic reports. These reporting requirements are based on the safety and health requirements applicable to mines under the Federal Mine Safety and Health Act of 1977 (the "Mine Act") which is administered by MSHA. During the fiscal year ended December 31, 2022, the

Company and its subsidiaries were not subject to regulation by MSHA under the Mine Act and thus no disclosure is required under Section 1503(a) of the Dodd-Frank Act.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information

Our common shares are traded on the TSX under the symbol "PPTA" and on the Nasdaq under the symbol "PPTA".

Holders of Record

As of March 10, 2023, there were 63,011,77 common shares outstanding and 36 shareholders of record.

Dividends

The Corporation has not paid any dividends or distributions on its common shares since its incorporation. Any decision to pay dividends on common shares in the future will be made by the board of directors of the Corporation (the "Board") on the basis of the earnings, financial requirements and other conditions existing at such time.

Recent Sales of Unregistered Securities; Issuer's Purchases of Equity Securities

None.

Use of Proceeds from Registered Securities

On August 16, 2021, we completed an underwritten public offering pursuant to a prospectus supplement to our short form base shelf prospectus dated April 1, 2021, filed pursuant to General Instruction II.L. of Form F-10, and declared effective by the SEC on April 2, 2021 (File No. 333-254517, the "Prospectus Supplement"). The Corporation issued 10,952,382 common shares, which included 1,428,572 common shares issued pursuant to the overallotment option granted to the underwriters, at a public offering price of $5.25 per common share for gross proceeds of approximately $57.5 million before deducting underwriting discounts and commissions and offering expenses. The net proceeds from the issuance were $54.3 million, after deduction of underwriting discounts and commissions and offering expenses of $3.2 million. B. Riley Securities, Inc. and Cantor Fitzgerald Canada Corporation acted as joint-bookrunning managers for the offering.

The Prospectus Supplement included a proposed use of proceeds that would be compared to expenditures from October 1, 2021 onwards. A reconciliation of the use of proceeds is provided below. As a result of the DPA funding announced in December 2022, which is available for limited uses related to environmental baseline data monitoring, environmental and technical studies and other activities related to advancing construction readiness and permitting, we reduced our planned use of the proceeds from the offering for permitting, environmental field operations and engineering and design work and reallocated those funds to general corporate purposes and restoration work pursuant to the ASAOC, as shown in the table below. Except as described, there has been no material change in the planned use of proceeds as described in our Prospectus Supplement.

Expense Category (in Millions)	Proposed Use of Proceeds	Updated Use of Proceeds	Actual Use of Proceeds	Remaining to be Spent/Difference
Permitting	$ 21.0	$ 11.0	$ 10.4	$ 0.6
General Corporate Purposes(i)	20.1	25.3	14.4	10.9
Early Restoration & Field Operations	7.9	17.0	6.0	11.0
Engineering & Design	5.3	1.0	0.9	0.1
	$ 54.3	**$ 54.3**	**$ 31.7**	**$ 22.6**

(i) Funds for general corporate purposes may be allocated for corporate expenses, business development and legal expenses.

None of the offering proceeds were paid directly or indirectly to any of our directors or officers (or their associates) or persons owning 10.0% or more of any class of our equity securities, to any other affiliates or to others.

Item 6. Reserved.

Not applicable.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

You should read the following discussion and analysis of our financial condition and results of operations as of December 31, 2022 and 2021 and for the fiscal years then ended together with our consolidated financial statements and related notes and other financial information appearing in this Annual Report. Some of the information contained in this discussion and analysis or set forth elsewhere in this Annual Report, including information with respect to our plans and strategy for our business, operations, and product candidates, includes forward-looking statements that involve risks and uncertainties. You should review the sections of this Annual Report captioned "Risk Factors" and "Cautionary Note Regarding Forward-Looking Statements" for a discussion of important factors that could cause our actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

Perpetua Resources (formerly Midas Gold Corp.) was incorporated on February 22, 2011 under the *Business Corporations Act* (British Columbia) (the "BCBCA"). The Corporation was organized to hold shares in wholly owned subsidiaries that locate, acquire, develop and restore mineral properties located principally in the Stibnite – Yellow Pine mining district in Valley County, Idaho, USA. The Corporation's principal asset is 100% ownership in subsidiaries that control the Stibnite Gold Project. The Corporation currently operates in one segment, mineral exploration in the United States. The registered office of the Perpetua Resources is Suite 1008-550 Burrard St, Vancouver, BC, V6C 2B5, Canada and the corporate head office is located at 201-405 S 8th St, Boise, ID 83702, USA.

2022 Key Highlights

- Zero lost time incidents or reportable environmental spills
- Awarded Department of Defense funding to study antimony from Stibnite Gold Project
- Announced the United States Forest Service published the Supplemental Draft Environmental Impact Statement which identified Perpetua Resources' proposed action as the Preferred Alternative (as defined below)
- Awarded a Technology Investment Agreement of up to $24.8 million under Title III of the Defense Production Act
- Completed summer field program including stream diversion activities and the removal of the Defense Minerals Exploration Administration legacy waste rock dump from within and along a tributary to the East Fork of the South Fork of the Salmon River
- Continued productive mediation discussions with the Nez Perce Tribe
- Received the Clean Air Act Permit to Construct from the Idaho Department of Environmental Quality
- Strengthened the Board of Directors (the "Board") with appointment of Laura Dove who brings three decades of external affairs and stakeholder management experience to Perpetua
- Welcomed value-oriented Kopernik as a new shareholder
- Awarded contract for stream diversion work as part of Phase 1 early cleanup activities
- Published 2021 Sustainability Report, the Company's ninth annual sustainability report
- Launched Sustainability Roadmap which outlines 13 goals to guide the Company as it advances the Stibnite Gold Project
- Promoted Jessica Largent to CFO and further strengthened team with hiring of Chris Fogg as Manager of Investor Relations
- Held 2022 Annual General Meeting and shareholders voted in favor of all proposals

2023 Outlook and Goals

Perpetua Resources' vision is to provide the United States with a domestic source of the critical mineral antimony, develop one of the largest and highest-grade open pit gold mines in the country and restore an abandoned brownfield site. In 2023, Perpetua Resources continues to focus on advancing the permitting for the Stibnite Gold Project through the National Environmental Policy Act process. The NEPA process is intended to ensure that federal agencies and the public are informed of a proposed action's potential environmental impacts before a final decision is made by the agency regarding the action.

Supplemental Draft Environmental Impact Statement ("SDEIS")

In response to public and agency feedback on the Draft Environmental Impact Statement released by the USFS in August 2020, Perpetua Resources proposed modifications to the mine plan analyzed in Alternative 2 in the DEIS and submitted a refined proposed action to the USFS in December 2020 (the "Modified Mine Plan"). The Modified Mine Plan included refinements to reduce the project footprint, improve water quality, and lower water temperature. The USFS decided to prepare a Supplemental Draft Environmental Impact Statement to further evaluate the project refinements and compare the Company's proposed site access via Burntlog Route to an alternative option using current roads.

After nearly two years of review of the Modified Mine Plan by the USFS and other agencies, the SDEIS was published on October 28, 2022 for a 75-day public comment period. In the SDEIS, the USFS highlights the net positive environmental outcomes that the Stibnite Gold Project can provide to the abandoned mine site based on the results of comprehensive scientific analysis conducted over the last six years. The USFS identified Perpetua Resources' proposed action, the "Modified Mine Plan," as the Preferred Alternative because the Modified Mine Plan:

- incorporates water management and closure activities to reduce the duration of long-term water treatment requirements,
- includes measures to manage stream temperatures, and
- reduces potential impacts associated with access, transportation and hazardous materials on alternative access routes to the project site.

The USFS also concluded the Preferred Alternative would reasonably accomplish the purpose and need for consideration of approval of the Stibnite Gold Project, while giving consideration to environmental, economic, and technical factors. Under NEPA, a "Preferred Alternative" is identified by a Federal agency in a DEIS to let the public know which action the agency is leaning toward selecting as final. However, identification of a "Preferred Alternative" does not represent a final decision and the USFS may still choose various actions based on the Modified Mine Plan or each of the alternatives analyzed in the SDEIS when developing the Final Environmental Impact Statement.

The SDEIS public review period closed on January 10, 2023. Following completion of the comment period and analysis, the Company expects the USFS to provide a schedule update including the expected timing to the FEIS, draft Record of Decision and to final Record of Decision.

Department of Defense Funding

In September 2022, Perpetua Resources was awarded two funding grants from the U.S. Department of Defense ("DOD") Defense Logistics Agency to study the domestic production of military-grade antimony trisulfide, an essential component in ammunition and dozens of other defense materials. Perpetua Resources expects to receive up to $200,000 in total to evaluate whether antimony from the Stibnite Gold Project can meet military specifications ("Mil-Spec") to help secure America's defense and commercial ammunition supply chain while also evaluating alternate methods for purifying antimony trisulfide. Perpetua Resources submitted two proposals to DLA's "Production of Energetic Materials and Associated Precursors" Small Business Innovation Research ("SBIR") grant solicitation. As described in the grant's objective, the program is focused on reducing "foreign reliance and single points of failure for the domestic manufacturing of energetic materials" through the development of a domestic source. After a competitive review process, Perpetua Resources was awarded SBIR Phase 1 funding of $100,000 for both programs. Each study is expected to be completed within the next six to 12 months. After the completion of the proposed programs, Phase 2 funding could be made available for more advanced stage pilot-scale testing within the next year. Together, the Phase 1 and Phase 2 programs could confirm the Project's ability to provide the domestic antimony source needed to meet the defense procurement demand and support commercial markets.

In December 2022, Perpetua Resources was awarded a TIA of up to $24.8 million under Title III of the DPA. The funding objective of the TIA, issued by the Air Force Research Laboratory, is to complete environmental and engineering studies necessary to obtain a FEIS, a Final Record of Decision, and other ancillary permits to sustain the domestic production of antimony trisulfide capability for defense energetic materials. The DPA funding allows the Company to advance the construction readiness of the Stibnite Gold Project while the Company continues through the ongoing permitting process, led by the USFS. Under the funding agreement, Perpetua Resources may request reimbursement for certain costs incurred over 24 months 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. The DPA funding does not interrupt the ongoing NEPA review process. The TIA is subject to negotiation of a definitized agreement with the DOD. Until the agreement is definitized, the maximum funding available under the TIA is capped at $18,600,000, 75% of the not-to-exceed amount. Perpetua Resources expects to enter into a definitized agreement in the first half of 2023. However, there is no assurance that Perpetua Resources will be able to finalize the definitized agreement on the expected timeline or at all. The TIA contains customary terms and conditions for technology investment agreements, including ongoing reporting obligations. Perpetua Resources is evaluating other U.S. government funding opportunities, including programs available through the DOD.

Inflation

The U.S. inflation rate has been steadily increasing since 2021 and throughout 2022. These inflationary pressures have resulted in and may result in additional increases to the costs of our goods, services and personnel, which in turn cause our capital expenditures and labor costs to rise, including the estimated costs to complete the ASAOC environmental reclamation work. Sustained levels of high inflation have likewise caused the U.S. Federal Reserve and other central banks to increase interest rates, which could have the effects of raising the cost of capital and depressing economic growth, either of which—or the combination thereof—could adversely affect our business.

The forward-looking information contained in this section is subject to the risk factors and assumptions contained in the "*Cautionary Note Regarding Forward-Looking Statements*" and "*Risks Factors*" sections.

Results of Operations

Year Ended December 31, 2022 Compared to the Year Ended December 31, 2021

	Year Ended	
	December 31, 2022	December 31, 2021
EXPENSES		
Corporate salaries and benefits	$ 1,893,965	$ 2,038,883
Depreciation	61,294	58,922
Directors' fees	528,607	767,013
Exploration	19,088,897	22,716,806
Environmental liability expense	4,564,611	12,198,651
General and administration	762,897	1,508,000
Gain on disposal of buildings and equipment	(40,215)	—
Professional fees	1,825,484	1,446,069
Shareholder and regulatory	646,319	555,517
OPERATING LOSS	29,331,859	41,289,861
OTHER EXPENSES (INCOME)		
Change in fair value of warrant derivative	(99,038)	(774,094)
Change in fair value of convertible note derivative	—	(5,710,557)
Finance costs	—	362,551
Foreign exchange loss	41,179	842,573
Grant income	(75,000)	—
Interest income	(485,469)	(58,308)
Total other expenses/(income)	618,328	(5,337,835)
Net Loss	$ 28,713,531	$ 35,952,026

Net Loss

Net loss for the year ended December 31, 2022, was $28.7 million compared with a net loss of $36.0 million for 2021. This $7.2 million decrease for the year was primarily attributable to a $7.6 million decrease in environmental liability expense, a $3.6 million decrease in exploration costs, a $0.8 million decrease in foreign exchange loss, and a $0.7 million decrease in general and administration expense. These reductions were partially offset by a $5.7 million decrease in the gain recognized on the change in fair value of convertible note derivative as all notes were converted in 2021 and a $0.7 million decrease in the gain on the change in fair value of warrant derivative. As noted above, for the year ended December 31, 2022, the Corporation's main focus was the continued evaluation and advancement of the Stibnite Gold Project.

Corporate Salaries and Benefits

This expense results from salaries and benefits of the employees that are not directly related to the exploration and evaluation of the Stibnite Gold Project, primarily corporate employees. Salaries and benefits for the year ended December 31, 2022 were $1.9 million, or 7.0%, lower than the previous year due to severance payments made to corporate employees in 2021 and lower share-based compensation expense in 2022.

Directors' Fees

Each of the Corporation's non-executive directors is entitled to annual base fees paid in quarterly installments, with the independent Lead Director, Chairs of Board Committees and Members of Board Committees receiving additional fees commensurate with each role. Directors' fees are inclusive of cash fees and share-based compensation (deferred share units and stock options). This expense for the year ended December 31, 2022, is $0.5 million, or 31%, lower than the previous year primarily due to lower share-based compensation expense.

Exploration

This expense relates to all exploration and evaluation expenditures related to the Stibnite Gold Project, including labor, drilling, field office costs, engineering, permitting, environmental and legal and sustainability costs. The Corporation's exploration expenses of $19.1 million during the year ended December 31, 2022 are $3.6 million, or 16%, lower than the previous year primarily due to a $1.7 million decrease in permitting, a $1.7 million decrease in consulting and labor costs, and a $0.6 million decrease in environmental and reclamation partially offset by a $0.8 million increase in legal and sustainability. Permitting expenses for the year ended December 31, 2022 were lower than the previous year due to a decrease in technical support and analysis required as requests for additional information to support the preparation of the SDEIS was substantially complete by the second quarter of 2022. Additional details of expenditures incurred are as follows:

	Years Ended	
	December 31, 2022	**December 31, 2021**
Consulting and labor cost	$ 5,891,878	$ 7,547,802
Engineering	727,377	1,036,467
Environmental and reclamation	151,392	711,307
Field office and drilling support	1,878,153	2,051,234
Legal and sustainability	2,171,757	1,399,976
Permitting	8,268,340	9,970,020
Exploration	$ 19,088,897	$ 22,716,806

Environmental Liability Expense

This expense relates to the ASAOC signed in January 2021 to voluntarily address environmental conditions at the abandoned mine site. Upon signing of the ASAOC, the Company recorded an immediate expense of $7.5 million and a corresponding environmental reclamation liability. Cost estimates were developed with the use of engineering consultants, independent contractor quotes and the Company's internal development team, and the timing of cash flows is based on the current schedule for early action items. In the year ended December 31, 2022, the total cost estimate to complete Phase 1 early cleanup actions increased $4.6 million driven by scope changes, inflation and higher fuel costs. As of December 31, 2022, the estimate for the remaining environmental liability was $10.8 million.

General and Administration

This expense is predominantly insurance policies for the U.S. offices and is $0.7 million, or 49%, lower for the year ended December 31, 2022, than the previous year primarily due to lower insurance premiums and the previous year included consulting work to support various corporate activities including the share consolidation and listing on the NASDAQ.

Gain on Disposal of Buildings and Equipment

This item relates to the gain on the sale of buildings and equipment and is $40,215 for the year ended December 31, 2022, compared to nil for the previous year primarily due selling equipment with no carrying value for gross proceeds of $49,173 offset by writing off the carrying value of equipment no longer owned in 2022.

Professional Fees

This expense relates to the legal, accounting and consulting costs of the Corporation. The expense for the year ended December 31, 2022 were $1.8 million, or 26%, higher than the previous year primarily due to legal and consulting work related to new filings required as a U.S. domestic issuer and the associated costs. Accounting expense for the year ended December 31, 2022 were higher due to accounting fees related to the change in the basis of accounting for the Company's consolidated financial statements from international standards to U.S. GAAP.

Shareholder and Regulatory

This expense relates to marketing, licenses and fees, and shareholder communications. The expense for the year ended December 31, 2022 is $0.6 million, or 16%, higher than the previous year primarily due to higher fees related to being listed on the NASDAQ and filing fees associated with being a U.S. domestic issuer.

Change in Fair Value of Warrant Derivative

The Corporation issued 200,000 warrants in a financing transaction in May 2013, with an exercise price denominated in Canadian dollars. The Corporation determined that warrants with an exercise price denominated in a currency that is different from the entity's functional currency should be classified as a derivative and carried at their fair value. Any changes in their fair value from period to period have been recorded as a gain or loss in the Consolidated Statements of Operations. There are no circumstances under which Perpetua Resources will be required to pay cash upon exercise or expiry of the warrants or finder's options (see Note 6 in the Consolidated Financial Statements). The gain on the change in fair value of warrants decreased $0.7 million or 87% in 2022 compared to 2021.

Change in Fair Value of Convertible Note Derivative

The Corporation issued unsecured Convertible Notes with an interest rate of 0.05% per annum in March 2016 and March 2020 (together, the "Convertible Notes") with an exercise price denominated in Canadian dollars. The Corporation determined that the Convertible Notes with an exercise price denominated in a currency that is different from the entity's functional currency should be classified as a derivative and carried at their fair value. Any changes in their fair value from inception to balance sheet date have been recorded as a gain or loss in the Consolidated Statements of Operations. The convertible note derivative is valued at fair value. During the year ended December 31, 2021, the change in fair value related to this derivative was $5.7 million. There was no similar amount during the year ended December 31, 2022 because all Convertible Notes were converted in 2021.

Finance Costs

Finance costs for the Corporation include accretion and interest expense related to the Convertible Notes described above, and transaction costs related to the conversion of the Convertible Notes. These costs for the year ended December 31, 2022, are $nil compared to $0.4 million recognized in 2021 because the remainder of the Convertible Notes converted in 2021.

Foreign Exchange Loss

Changes in foreign exchange are driven by the change in value of the Canadian Dollar compared to the U.S. Dollar. The $0.8 million loss for the year ended December 31, 2021 was a result of the translation of the Corporation's Canadian dollar denominated balances primarily on the Convertible Notes and the convertible note derivatives before their conversion in 2021. In 2022, the loss decreased to $41,179 as all of the Convertible Notes were converted in 2021.

Grant Income

This income is from the DOD funding to domestic production of military-grade antimony trisulfide. Grant income increased $0.1 million in the year ended December 31, 2022, compared the previous year as the grants were awarded in September 2022.

Interest Income

This income results from interest received on the Corporation's cash balances. Interest income increased $0.4 million in the year ended December 31, 2022, compared to the previous year due to higher interest rates throughout the year and higher average cash balances in 2022.

Liquidity and Capital Resources

Capital resources of Perpetua Resources consist primarily of cash and liquid short-term investments. As of December 31, 2022, Perpetua Resources had cash and cash equivalents totaling approximately $22.7 million, approximately $0.9 million in other current assets and $2.7 million in trade and other payables.

In August 2021, the Corporation completed a public offering for total gross proceeds of $57.5 million to be used to continue permitting, early restoration and field operations, engineering and design and general corporate purposes. In December 2022, the Corporation was awarded a TIA of up to $24.8 million under Title III of the DPA. The TIA is subject to negotiation of a definitized agreement with the DOD. Until the agreement is definitized, the maximum funding available under the TIA is capped at $18.6 million, 75% of the not-to-exceed amount. Perpetua Resources expects to enter into a definitized agreement in the first half of 2023. Under the funding agreement, Perpetua Resources may request reimbursement for certain costs incurred over 24 months 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. As a result of the DPA funding, we reduced our planned use of the proceeds from the public offering for permitting and engineering and design work and reallocated those funds to general corporate purposes and restoration work pursuant to the ASAOC.

Perpetua Resources expects that current cash resources, combined with the full $24.8 million of potential DPA funding under the TIA, is expected to provide the Company with sufficient liquidity to complete permitting and early restoration activities on the current timeline as well as additional liquidity to begin advancing construction readiness into 2024. Perpetua Resources plans to:

- Continue engaging with Project stakeholders to provide those stakeholders with the opportunity for a better understanding of the Project concepts and to provide a forum for such stakeholders to provide further input into the Project;
- Continue to collect environmental baseline data in support of the ongoing regulatory processes related to permitting for site restoration and redevelopment of the Project;
- Continue to advance the regulatory process for the restoration and redevelopment of the Project; and
- Continue to advance the voluntary early cleanup actions under the ASAOC.

It is management's opinion, based on the Corporation's current capital resources and liquidity, combined with the full DPA funding under the TIA, that the Corporation will have sufficient assets to discharge its liabilities as they become due, to continue to advance the Stibnite Gold Project beyond 2023, and to meet its administrative and overhead requirements for more than a year. Future financings to fund construction are anticipated through debt, equity, project specific debt, government funding and/or other means. Our continued operations are dependent on our ability to obtain additional financing or to generate future cash flows. However, there can be no assurance that we will be successful in our efforts to raise additional capital on terms favorable to us, or at all.

Our anticipated expenditures in fiscal year 2023 are approximately $33.6 million, which are expected to be funded from cash on hand and the DPA funding reimbursements. These expenditures include an estimated $10.1 million to fund permitting of the Stibnite Gold Project, $9.1 million for general corporate purposes and administrative costs, $2.9 million for engineering and design work and $11.5 million to advance early restoration under the ASAOC and continue field operations. These costs are subject to change due to cost over-runs, delays or other unbudgeted events. See section *Item 1A, Risk Factors – Risks Related to Our Business.*

Critical Accounting Estimates

We believe the following accounting policies are critical to our Consolidated Financial Statements due to the degree of uncertainty regarding the judgements or assumptions involved and/or the magnitude of the asset, liability, or expense being reported.

Mineral Property Acquisition and Exploration Costs

Mineral property acquisition costs are capitalized when incurred. Acquisition costs include cash consideration and the fair market value of shares issued on the acquisition of mineral property claims.

Costs related to the development of our mineral reserves are capitalized when it has been determined an ore body can be economically developed. The development stage begins when an ore body is determined to be economically recoverable based on Proven and Probable Mineral Reserves and ends when the production stage or exploitation of reserves begins. Major mine development expenditures are capitalized, including primary development costs such as costs of building access ways, tailings impoundment, development of water supply and infrastructure developments.

Exploration costs include those relating to activities carried out (a) in search of previously unidentified mineral deposits, or (b) at undeveloped concessions. Pre-development activities involve costs incurred in the exploration stage that may ultimately benefit production that are expensed due to the lack of evidence of economic development, which is necessary to demonstrate future recoverability of these expenses. Secondary development costs are incurred for preparation of an ore body for production in a specific ore block or work area, providing a relatively short-lived benefit only to the mine area they relate to, and not to the ore body as a whole.

Once production has commenced, capitalized costs will be depleted using the units-of-production method over the estimated life of the Proven and Probable Mineral Reserves. If mineral properties are subsequently abandoned or impaired, any capitalized costs will be charged to the Consolidated Statements of Operations in that period.

We assess the carrying cost of our mineral properties for impairment whenever information or circumstances indicate the potential for impairment. Such evaluations compare estimated future net cash flows with our carrying costs and future obligations on an undiscounted basis. If it is determined that the future undiscounted cash flows are less than the carrying value of the property, a write down to the estimated fair value is charged to the Consolidated Statements of Operations for the period. Where estimates of future net cash flows are not available and where other conditions suggest impairment, management assesses if the carrying value can be recovered.

For significant exploration and development projects, interest is capitalized as part of the historical cost of developing and constructing assets in accordance with ASC 835-20. Interest is capitalized until the asset is ready for service. Capitalized interest is determined by multiplying the Company’s weighted-average borrowing cost on general debt by the average amount of qualifying costs incurred. Once an asset subject to interest capitalization is completed and placed in service, the associated capitalized interest is expensed through depletion or impairment.

Share Based Compensation

We account for all share-based payments and awards under the fair value-based method. Share-based payments to non-employees are measured at the fair value of the consideration received, or the fair value of the equity instruments issued, or liabilities incurred, whichever is more reliably measurable.

The fair value of share-based payments to non-employees is periodically re-measured until the counterparty performance is complete, and any change therein is recognized over the vesting period of the award and in the same manner as if we had paid cash instead of paying with or using equity-based instruments. The cost of the share-based payments to non-employees that are fully vested and non-forfeitable as at the grant date is measured and recognized at that date, unless there is a contractual term for services in which case such compensation would be amortized over the contractual term.

We account for the granting of stock options to employees using the fair value method whereby all awards to employees will be recorded at fair value on the date of the grant. The fair value of all stock options is expensed over their vesting period with a corresponding increase to additional paid-in capital.

Compensation costs for share-based payments that do not include performance conditions are recognized on a straight-line basis. Compensation cost associated with a share-based award having a performance condition is recognized on the probable outcome of that performance condition during the requisite service period. Share-based awards with a performance condition are accrued on an award by award basis.

We use the Black-Scholes option valuation model to calculate the fair value of stock options at the date of the grant. Option pricing models require the input of highly subjective assumptions, including the expected price volatility. Changes in these assumptions can materially affect the fair value estimates.

Income Taxes

We account for income taxes under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Under the asset and liability method, the effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is recognized if it is more likely than not that some portion or the entire deferred tax asset will not be recognized.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Not applicable.

Item 8. Financial Statements and Supplementary Data.

PERPETUA RESOURCES CORP.
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Perpetua Resources Corp.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Perpetua Resources Corp. and its subsidiaries (the "Company”) as of December 31, 2022 and 2021, and the related consolidated statements of operations, of changes in shareholders’ equity and of cash flows for the years then ended, including the related notes (collectively referred to as the "consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these consolidated financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP
Denver, Colorado
March 16, 2023

We have served as the Company’s auditor since 2021.

Perpetua Resources Corp.
CONSOLIDATED BALANCE SHEETS

		December 31, 2022		December 31, 2021
ASSETS				
CURRENT ASSETS				
Cash and cash equivalents	$	22,667,047	$	47,852,846
Receivables		280,150		279,946
Prepaid expenses		614,930		946,281
		23,562,127		49,079,073
NON-CURRENT ASSETS				
Buildings and equipment, net (Note 3)		294,980		165,256
Right-of-use assets (Note 4)		68,675		49,103
Environmental reclamation bond (Note 11)		3,000,000		3,000,000
Mineral properties and interest (Note 5)		72,519,373		72,204,334
TOTAL ASSETS	$	99,445,155	$	124,497,766
LIABILITIES AND SHAREHOLDERS' EQUITY				
CURRENT LIABILITIES				
Trade and other payables	$	2,741,516	$	2,838,214
Lease liabilities (Note 4)		70,449		69,987
Environmental reclamation liabilities (Note 11)		9,590,766		2,835,000
		12,402,731		5,743,201
NON-CURRENT LIABILITIES				
Warrant derivative (Notes 6)		1,732		100,770
Environmental reclamation liabilities (Note 11)		1,210,170		7,053,200
TOTAL LIABILITIES		13,614,633		12,897,171
COMMITMENT AND CONTINGENCIES (Note 12)				
SHAREHOLDERS' EQUITY (Note 8)				
Common stock, no par value, unlimited shares authorized, 63,011,777 and 62,971,859 shares outstanding, respectively		615,553,448		615,359,152
Additional paid-in capital		32,203,858		29,454,696
Accumulated deficit		(561,926,784)		(533,213,253)
TOTAL SHAREHOLDERS' EQUITY		85,830,522		111,600,595
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	$	99,445,155	$	124,497,766

See accompanying notes to the consolidated financial statements

Perpetua Resources Corp.
CONSOLIDATED STATEMENTS OF OPERATIONS

	Years ended December 31 2022	2021
EXPENSES		
Corporate salaries and benefits	$ 1,893,965	$ 2,038,883
Depreciation	61,294	58,922
Directors' fees	528,607	767,013
Exploration	19,088,897	22,716,806
Environmental liability expense	4,564,611	12,198,651
General and administration	762,897	1,508,000
Gain on disposal of buildings and equipment	(40,215)	—
Professional fees	1,825,484	1,446,069
Shareholder and regulatory	646,319	555,517
OPERATING LOSS	29,331,859	41,289,861
OTHER EXPENSES (INCOME)		
Change in fair value of warrant derivative (Note 6)	(99,038)	(774,094)
Change in fair value of convertible note derivative (Note 7)	—	(5,710,557)
Finance costs	—	362,551
Foreign exchange loss	41,179	842,573
Grant income	(75,000)	—
Interest income	(485,469)	(58,308)
Total other loss (income)	(618,328)	(5,337,835)
NET LOSS	$ 28,713,531	$ 35,952,026
NET LOSS PER SHARE, BASIC AND DILUTED	$ 0.46	$ 0.66
WEIGHTED AVERAGE COMMON SHARES OUTSTANDING, BASIC AND DILUTED	62,986,816	54,530,322

See accompanying notes to the consolidated financial statements

Perpetua Resources Corp.
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
For the years ended December 31, 2022 and 2021

	Common Stock		Additional Paid in	Accumulated	
	Shares	Amount	Capital	Deficit	Total
BALANCE, December 31, 2020	47,481,134	$ 528,715,788	$ 26,176,265	$ (497,261,227)	$ 57,630,826
Share based compensation	—	—	3,949,204	—	3,949,204
Shares sold through stock offering (Note 8)	10,952,382	57,500,005	—	—	57,500,005
Share issue cost	—	(3,243,184)	—	—	(3,243,184)
Shares issued upon conversion of convertible notes (Note 7)	4,351,850	31,183,654	—	—	31,183,654
Shares issued through stock appreciation rights	39,789	301,794	(279,868)	—	21,926
Restricted shares units distributed	21,166	119,981	(119,981)	—	—
Exercise of share purchase options	125,538	781,114	(270,924)	—	510,190
Net loss for the year	—	—	—	(35,952,026)	(35,952,026)
BALANCE, December 31, 2021	62,971,859	615,359,152	29,454,696	(533,213,253)	111,600,595
Share based compensation	—	—	2,943,458	—	2,943,458
Restricted and performance shares units distributed	39,918	194,296	(194,296)	—	—
Net loss for the year	—	—	—	(28,713,531)	(28,713,531)
BALANCE, December 31, 2022	63,011,777	615,553,448	32,203,858	(561,926,784)	85,830,522

See accompanying notes to the consolidated financial statements

Perpetua Resources Corp.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years ended December 31, 2022	Years ended December 31, 2021
OPERATING ACTIVITIES:		
Net loss	$ (28,713,531)	$ (35,952,026)
Noncash items included in net loss:		
Share based compensation (Note 8)	2,943,458	3,949,204
Depreciation (Note 3)	61,294	58,922
Accretion of convertible debt discount (Note 7)	—	362,545
Gain on disposal of buildings and equipment	(40,215)	—
Change in fair value of warrant derivative (Note 6)	(99,038)	(774,094)
Change in fair value of convertible note derivative (Note 7)	—	(5,710,557)
Environmental liability expense (Note 11)	4,564,611	12,198,651
Unrealized foreign exchange loss	5,772	917,662
Changes in:		
Receivables	(204)	(182,331)
Prepaid expenses	331,351	(299,285)
Trade and other payables	(115,808)	(905,198)
Environmental reclamation liabilities (Note 11)	(3,651,875)	(2,310,451)
Net cash used in operating activities	(24,714,185)	(28,646,958)
INVESTING ACTIVITIES:		
Investment in mineral properties and interest (Note 5)	(315,039)	(290,470)
Purchase of buildings and equipment	(199,976)	(34,884)
Proceeds from sale of buildings and equipment	49,173	—
Purchase of surety bond	—	(3,000,000)
Net cash used in investing activities	(465,842)	(3,325,354)
FINANCING ACTIVITIES:		
Proceeds from sale of common stock	—	57,500,005
Payment of shares issue costs (Note 8)	—	(3,243,184)
Proceeds from exercise of share purchase options (Note 8)	—	532,116
Net cash provided by financing activities	—	54,788,937
Effect of foreign exchange on cash and cash equivalents	(5,772)	(1,545)
Net increase (decrease) in cash and cash equivalents	(25,185,799)	22,815,080
Cash and cash equivalents, beginning of year	47,852,846	25,037,766
Cash and cash equivalents, end of year	$ 22,667,047	$ 47,852,846
SUPPLEMENTAL CASH FLOW INFORMATION:		
Cash paid for interest	$ 8,228	$ 7,190
NONCASH INVESTING AND FINANCING ACTIVITIES		
Recognition of operating lease liability and right-of-use asset	$ 142,487	$ —
CASH AND CASH EQUIVALENTS		
Cash	$ 4,255,355	$ 2,423,974
Investment savings accounts	13,304,761	24,246,918
GIC and term deposits	5,106,931	21,181,954
Total cash and cash equivalents	$ 22,667,047	$ 47,852,846

See accompanying notes to the consolidated financial statements

Perpetua Resources Corp.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of Operations

Perpetua Resources Corp. (the "Corporation", the "Company", "Perpetua Resources" or "Perpetua") was incorporated on February 22, 2011 under the Business Corporation Act of British Columbia. The Company was organized to hold shares in wholly owned subsidiaries that locate, acquire, develop and restore mineral properties located principally in the Stibnite – Yellow Pine mining district in Valley County, Idaho, USA. The Company's principal asset is 100% ownership in subsidiaries that control the Stibnite Gold Project ("Stibnite Gold Project" or the "Project"). The Company currently operates in one segment, mineral exploration in the United States.

The Corporation has had continuing net losses and has an accumulated deficit of approximately $561.9 million as of December 31, 2022. As of December 31, 2022, the Company had cash and cash equivalents totaling approximately $22.7 million and net working capital of approximately $11.2 million. It is management's opinion, based on the Corporation's current capital resources and liquidity, combined with the up to $ 24.8 million in funding awarded under the Technology Investment Agreement (the "TIA") pursuant to Title III of the Defense Production Act ("DPA"), that the Corporation will have sufficient assets to discharge its liabilities as they become due, to continue advancing the regulatory process related to permitting for mine development for at least 12 months from the date these consolidated financial statements are issued.

2. Summary of Significant Accounting Policies

Basis of Presentation

These consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP").

a. Basis of Consolidation

These consolidated financial statements include the financial statements of Perpetua Resources and its wholly owned subsidiary companies:

Perpetua Resources Idaho, Inc.;
Idaho Gold Resource Company, LLC; and
Stibnite Gold Company (merged with Idaho Gold Resource Company, LLC in 2021 and liquidated).

All intercompany transactions, balances, income and expenses have been eliminated.

b. Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the Consolidated Financial Statements and the reported amounts of expenses during the reporting period. The Company regularly evaluates estimates and assumptions related to the deferred income tax asset valuations and share-based compensation. The Company bases its estimates and assumptions on current facts, historical experience and various other factors that it believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the other sources. The actual results experienced by the Company may differ materially and adversely from the Company's estimates. To the extent there are material differences between estimates and the actual results, future results of operations will be affected.

c. Functional and Reporting Currency

Items included in the financial statements of each of the Company's entities are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The functional and reporting currency of the Company and its subsidiaries is the U.S. Dollar ("USD" or "$"). All amounts in these consolidated financial statements are in USD, unless otherwise stated.

Transactions in currencies other than the entity’s functional currency are recorded at the exchange rate prevailing at the dates of the transactions. Monetary assets and liabilities are translated using the period end foreign exchange rate. Non-monetary assets and liabilities are translated using the historical rate. All gains and losses on translation of these foreign currency transactions are included in the Consolidated Statements of Operations.

d. Cash and Cash Equivalents

For the purpose of the Consolidated Balance Sheets and Consolidated Statements of Cash Flows, the Company considers all highly liquid investments readily convertible to a known amount of cash with an original maturity of three months or less and subject to an insignificant risk of changes in value to be cash equivalents.

e. Buildings and Equipment

Buildings and equipment are recorded at cost less depreciation and depletion and accumulated impairment losses, if any. We capitalize expenditures for improvements that significantly extend the useful life of an asset. We charge expenditures for maintenance and repairs to operations when incurred. When an asset is sold, we recognize a gain (loss) in the Consolidated Statements of Operations based upon the proceeds received on the sale less the net carrying value of the asset. The cost of self-constructed assets includes the cost of materials, direct labor and an appropriate portion of normal overhead. Portions of interest costs incurred on debt is capitalized as a part of the cost of constructing or acquiring certain qualifying assets.

The Company depreciates its assets, less their estimated residual values, as follows:

Category	Method	Useful life
Equipment and Vehicles	Straight-line	3 to 7 years
Building Leasehold Improvements	Straight-line	5 to 8 years

Buildings and equipment held and used by the Company are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. For purposes of evaluating the recoverability of buildings and equipment, the recoverability test is performed using undiscounted net cash flows related to the assets or asset group. If such assets are considered to be impaired, the impairment recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets or asset group.

f. Mineral Properties and Interest

Perpetua Resources is in the development stage based on the Company’s Probable Mineral Reserves as set forth in the Technical Report Summary, dated as of December 31, 2021, and amended as of June 6, 2022 (the "TRS”). Mineral properties and interest acquisition costs, including indirectly related acquisition costs, are capitalized when incurred. Properties acquired under option agreements, whereby payments are made at the sole discretion of the Company, are capitalized as mineral properties and interest acquisition costs at such time as the payments are made. Exploration costs are expensed as incurred.

When it is determined that a mining deposit can be economically and legally extracted or produced based on established Proven and Probable Mineral Reserves under the United States Securities and Exchange Commission ("SEC”) S-K 1300, development costs related to such reserves and incurred after such determination will be considered for capitalization. The establishment of Proven and Probable Mineral Reserves is based on results of feasibility studies, which indicate whether a property is economically feasible. Upon commencement of commercial production, capitalized costs will be amortized over their estimated useful lives or units of production, whichever is a more reliable measure. Capitalized amounts relating to a property that is abandoned or otherwise considered uneconomic for the foreseeable future are written off.

We review and evaluate the net carrying value of mineral properties and interest for impairment upon the occurrence of events or changes in circumstances that indicate that the related carrying amounts may not be recoverable. This would include events and circumstances such as our inability to obtain all the necessary permits, changes in the legal status of our mineral properties, government actions, the results of exploration activities and technical evaluations and changes in economic conditions, including the price of commodities or input prices. Such evaluations compare estimated future net cash flows with our carrying costs and future obligations on an undiscounted basis.

If it is determined that the estimated future undiscounted cash flows are less than the carrying value of the property, an impairment loss will be recorded. Where estimates of future net cash flows are not determinable and where other conditions indicate the potential for impairment, management uses available market information and/or third-party valuation experts to assess if the carrying value can be recovered and to estimate fair value.

The recoverability of the carrying values of mineral properties and interest is dependent upon economic reserves being discovered or developed on the properties, permitting, financing, start-up, and commercial production from, or the sale/lease of, or other strategic transactions related to these properties. Development and/or start-up of a project will depend on, among other things, management's ability to raise sufficient capital for these purposes.

g. Leases

Upon inception, we determine if a contractual arrangement is, or contains, a lease. Right-of-use ("ROU") assets and liabilities related to operating leases are separately reported in the Consolidated Balance Sheets. The Company currently has no finance leases.

ROU assets and lease liabilities are recognized at the lease commencement date based on the present value of the future lease payments over the lease term. When the rate implicit to the lease cannot be readily determined, we utilize our incremental borrowing rate in determining the present value of the future lease payments. The incremental borrowing rate is derived from information available at the lease commencement date and represents the rate of interest that a lessee would have to pay to borrow an amount equal to the lease payments on a collateralized basis over a similar term in a similar economic environment. Operating lease ROU assets and liabilities also include any cumulative prepaid or accrued rent when the lease payments are uneven throughout the lease term. The ROU assets and lease liabilities may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option.

Lease liabilities are increased by interest and reduced by payments each period, and the ROU asset is amortized over the lease term. For operating leases, interest on the lease liability and the amortization of the ROU asset result in straight-line rent expense over the lease term. Variable lease expenses are recorded when incurred.

h. Share Based Compensation

The Company uses its common stock for various forms of share based compensation arrangements entered into with directors, officers, employees and consultants. Share based compensation arrangements are accounted for at fair value on the date of grant. For awards with graded vesting, the fair value of each tranche is measured separately and recognized over its respective vesting period. Total amount recognized as expense is adjusted to reflect the number of share options which ultimately vest. The Company recognizes forfeitures as they occur.

The fair value of stock options is determined using a Black-Scholes valuation model. Option pricing models require the input of subjective assumptions including the length of time employees will retain their vested stock options before exercising them, expected share price volatility, and interest rate. Changes in the input assumptions can materially affect the fair value estimate and the Company's net loss.

The fair value of other share-based awards is based on the valuation of the common stock on the date of grant. The fair value of time-based awards that are ultimately expected to vest is recognized as an expense on a straight-line basis over the requisite service period. The fair value of performance-based awards is adjusted for the probability of achieving the performance conditions and is recognized on a straight line basis over the term of the award agreement.

i. Reclamation and Remediation Costs and Asset Retirement Obligations

The Company is subject to various government laws and regulations relating to environmental disturbances caused by exploration, development and production activities. The estimated costs associated with environmental reclamation liabilities are accrued in the period in which the liability is incurred if it is reasonably estimable or known. Future reclamation and environmental-related expenditures are difficult to estimate in many circumstances due to the early-stage nature of Company's operations, the uncertainties associated with defining the nature and extent of environmental disturbance, the application of laws and regulations by regulatory authorities and changes in reclamation or remediation technology. The Company periodically reviews accrued liabilities for such reclamation and remediation costs as evidence indicating that the liabilities have potentially changed becomes available. Changes in estimates are reflected in the Consolidated Statements of Operations in the period an estimate is revised.

The Company recognizes asset retirement obligations for statutory, contractual, or legal obligations associated with buildings and equipment and mineral interests and properties when those obligations result from the acquisition, construction, development or normal operation of the assets. The Company records a liability for the present value of estimated reclamation costs, and the related asset created with it, in the period in which the liability is incurred. The liability is accreted, and the asset is depreciated over the life of the related assets. Adjustments for changes resulting from the passage of time and changes to either the timing or amount of the original present value estimate underlying the obligation are made in the period incurred. Discount rates using a pre-tax rate that reflect the time value of money are used to calculate the net present value of such costs. The Company's estimates of reclamation costs could change as a result of changes in regulatory requirements, discount rates and assumptions regarding the amount and timing of the future expenditures. The Company has no asset retirement obligations as of December 31, 2022 and 2021.

j. Fair Value Measurements

The fair value of a financial instrument is the amount that could be received upon the sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value should be calculated based on assumptions that market participants would use in pricing the asset or liability, not on assumptions specific to the entity. In addition, the fair value of liabilities should include consideration of non-performance risk, including the party's own credit risk.

Fair value measurements do not include transaction costs. A fair value hierarchy is used to prioritize the quality and reliability of the information used to determine fair values. Categorization within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement. The fair value hierarchy is defined into the following three categories:

- Level 1: Quoted market prices in active markets for identical assets or liabilities.
- Level 2: Observable market-based inputs or unobservable inputs that are corroborated by market data.
- Level 3: Unobservable inputs that are not corroborated by market data.

k. Convertible Debt

Upon the issuance of convertible debt, the Company evaluates embedded conversion features within convertible debt to determine whether the embedded conversion feature(s) should be bifurcated from the host instrument and accounted for as a derivative at fair value with changes in fair value recorded in earnings.

The Company generally accounts for warrants issued in connection with debt and equity financings as a component of equity if they are freestanding and meet the conditions for equity classification. The equity component is treated as a discount on the liability component of the convertible debt, which is amortized over the term of the convertible debt using the effective interest rate method. Debt issuance costs related to the convertible debt are allocated to the liability and equity components of the convertible debt based on their relative values. Debt issuance costs allocated to the liability component are amortized over the life of the convertible debt as additional non-cash interest expense. Transaction costs allocated to equity are netted with the equity component of the convertible debt instrument in shareholders' equity.

l. Derivative Instruments

Derivative instruments are recognized as either assets or liabilities on the Consolidated Balance Sheets at fair value. The accounting for changes in the fair value of derivative instruments depends on their intended use and resulting hedge designations. Changes in the fair value of derivative instruments not designated as hedges are recorded in the Consolidated Statements of Operations as a component of other income (expense). The Company has no derivative instruments designated as hedges at December 31, 2022 and December 31, 2021.

The Company evaluates and accounts for embedded derivatives in its financial instruments based on three criteria that, if met, require bifurcation of embedded derivatives from their host instruments and accounting for them as free-standing derivative financial instruments. These three criteria include circumstances in which (a) the economic characteristics and risks of the embedded derivative instrument are not clearly and closely related to the economic characteristics and risks of the host contract, (b) the hybrid instrument that embodies both the embedded derivative instrument and the host contract is not required to be re-measured at fair value and (c) a separate instrument with the same terms as the embedded derivative instrument would be considered a derivative instrument. The result of this accounting treatment could be that the fair value of a financial instrument is classified as a derivative financial instrument and is shown at its fair value at each balance sheet date and recorded as an asset or liability with the change in fair value recorded in the Consolidated Statements of Operations as other income (expense).

The Company uses the Black-Scholes Option Pricing Model or other valuation models for valuation of the conversion option derivative associated with its convertible notes and warrant derivative. Valuation models require the input of subjective assumptions including expected share price volatility, interest rate and forfeiture rate. Changes in the input assumptions can materially affect the fair value estimate and the Company's net loss.

m. Income Taxes

Income taxes are accounted for under the liability method. Under this method deferred income tax liabilities or assets are recorded for expected future tax consequences of temporary differences between the financial statement carrying amounts and the tax bases of those assets and liabilities, as well as operating loss and tax credit carryforwards, using enacted tax rates in effect in the years in which the differences are expected to reverse. We provide for federal, state and foreign income taxes currently payable, if any. Federal, state and foreign tax benefits are recorded as a reduction of income taxes, when applicable.

A valuation allowance is recorded against deferred tax assets if management does not believe the Company is more likely than not that the asset will be recognized. We evaluate available positive and negative evidence available to determine the amount of valuation allowance required on our deferred tax assets.

We evaluate uncertain tax positions in a two-step process, whereby (i) it is determined whether it is more likely than not that the tax positions will be sustained based on the technical merits of the position and (ii) for those tax positions that meet the more-likely-than-not recognition threshold, the largest amount of tax benefit that is greater than 50% likely of being realized upon ultimate settlement with the related tax authority would be recognized.

n. Loss Per Share

Basic loss per share is computed by dividing the net loss available to common shareholders by the weighted average number of shares outstanding during the reporting period. Diluted loss per share is computed similar to basic loss per share except that the weighted average shares outstanding are increased to include additional shares for the assumed exercise of share purchase options and warrants, if dilutive. The Company's potential dilutive shares of common stock include outstanding share purchase options, restricted share units (RSUs), performance share units (PSUs), deferred share units (DSUs) and warrants. Potentially diluted shares as of December 31, 2022 and December 31, 2021 were as follows:

	December 31, 2022	December 31, 2021
Share purchase options	1,945,650	2,497,150
Shares units	780,897	82,297
Warrants	200,000	200,000
Total	2,926,547	2,779,447

All potentially dilutive shares were excluded from the calculation of diluted loss per share as their impact would be anti-dilutive.

o. Financial Instruments

The Company's financial instruments consist of cash and cash equivalents and the environmental reclamation bond. The fair values of these instruments approximate their carrying value given their short-term nature unless otherwise noted.

p. Concentration of Credit Risk

The financial instrument which potentially subjects the Company to credit risk is cash and cash equivalents. The Corporation holds its cash with Canadian chartered banks and the risk of default is considered to be remote. As part of its cash management process, the Company regularly monitors the relative credit standing of these institutions.

q. Reclassifications

Certain amounts in prior years have been reclassified to conform with the current period presentation.

r. Grant income

From time to time, the Company may be awarded government grants. US GAAP does not have specific accounting standards covering government grants to business entities. The Company applies International Accounting Standards 20 ("IAS 20"), Accounting for Government Grants and Disclosure of Government Assistance by analogy when accounting for government grants. Under IAS 20, government grants are initially recognized when there is reasonable assurance the conditions of the grant will be met and the grant will be received. After initial recognition, government grants are recognized in earnings on a systematic basis in a manner that mirrors the manner in which the Company recognizes the underlying costs for which the grant is intended to compensate. A grant receivable is recognized if it compensates for expenses or losses already incurred. The Company has adopted the disclosure requirements of Accounting Standards Codification ("ASC") 832 Government Assistance.

s. Research and Development Costs

Research and development costs are recognized as operating expenses when incurred and are classified as exploration costs.

t. Recently Issued Accounting Pronouncements

In August 2020, the Financial Accounting Standards Board (the "FASB") issued Accounting Standard Update("ASU") No. 2020-06, "Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging - Contracts in Entity's Own Equity (Subtopic 815-40)," which simplifies the accounting for convertible instruments. The guidance removes certain accounting models which separate the embedded conversion features from the host contract for convertible instruments, requiring bifurcation only if the convertible debt feature qualifies as a derivative or for convertible debt issued at a substantial premium. The ASU removes certain settlement conditions required for equity contracts to qualify for the derivative scope exception, permitting more contracts to qualify for the exception. In addition, the guidance eliminates the treasury stock method to calculate diluted earnings per share for convertible instruments and requires the use of the if-converted method. The ASU is effective for annual reporting periods beginning after December 15, 2023 for smaller reporting companies, including interim reporting periods within those annual periods, with early adoption permitted no earlier than the fiscal year beginning after December 15, 2021. The early adoption of this update on January 1, 2022 did not have a material impact on our consolidated financial statements.

From time to time, new accounting pronouncements are issued by the FASB that are adopted by the Company as of the specified effective date. Unless otherwise discussed, management believes that the impact of recently issued standards did not or will not have a material impact on the Company's consolidated financial statements upon adoption.

3. Buildings and Equipment

At December 31, 2022 and 2021, the Company's buildings and equipment were as follows:

	December 31, 2022	December 31, 2021
Buildings	$ 2,249,908	$ 2,320,291
Equipment and Vehicles	4,253,346	4,284,020
	6,503,254	6,604,311
Accumulated Depreciation	(6,208,274)	(6,439,055)
Balance	$ 294,980	$ 165,256

Depreciation expense on buildings and equipment for the years ended December 31, 2022 and 2021 was $61,294 and $58,922, respectively.

4. Leases

At December 31, 2022, the Company has two lease agreements for building space in Donnelly and Boise, Idaho both of which have been determined to be operating leases. Both leases provide the option for the Company to extend leases for additional time periods of one and two years, respectively, which was not recognized as part of the right to use assets and lease liabilities value. For measurement of the original lease liability and right of use asset, the Company assumed a discount rate of 10.0% based on the Company's incremental borrowing rate. During the years ended December 31, 2022 and 2021, the Company recognized $207,963 and $206,200, respectively, in rent expense which is included in general and administration expense on the Consolidated Statements of Operations. The weighted average remaining lease term for operating leases as of December 31, 2022 was 0.7 years. At December 31, 2022, all remaining undiscounted lease payments of $73,132 under these lease agreements will be paid in 2023.

5. Mineral Properties and Interest

At December 31, 2022 and 2021, the Company's mineral properties and interest at the Stibnite Gold Project totaled $72,519,373 and $72,204,334, respectively.

The Company's subsidiaries acquired mineral rights to the Stibnite Gold Project through several transactions. All mineral rights held by the Company's subsidiaries are held through patented and unpatented mineral and mill site claims, except the Cinnabar option claims which are held under an option to purchase, and all of the Stibnite Gold Project is subject to a 1.7% net smelter returns royalty upon the sale of project-related production.

Included in mineral properties and interest are annual payments made under option agreements, where the Company is entitled to continue to make annual option payments or, ultimately, purchase certain properties. Annual payment due under option agreements during 2023 are $180,000.

As of December 31, 2022, it has not yet been determined that the Project's mining deposits can be economically and legally extracted or produced because the Project's estimated reserves do not yet meet the definition of proven reserves under the United States SEC Regulation S-K 1300.

Accordingly, development costs related to such reserves will not be capitalized unless they are incurred after such determination. Upon commencement of commercial production, capitalized costs will be amortized over their estimated useful lives or units of production, whichever is a more reliable measure.

Although the Company has taken steps to review and verify mineral rights to the properties in which it has an interest, in accordance with industry standards for properties in the exploration stage, these procedures do not guarantee the Company's title and interests. Mineral title may be subject to unregistered prior agreements and noncompliance with regulatory requirements.

6. Warrant Derivative

In May 2013, the Company issued to Franco Nevada Company ("Franco") 200,000 share purchase warrants ("Franco Warrants") for gross proceeds of $350,000. The Franco Warrants are exercisable into 200,000 common shares of the Company at C$12.30 per warrant. The Franco Warrants contain a mandatory conversion feature which requires Franco to exercise 100% of the outstanding warrants if, at any time, the volume weighted average trading price of Perpetua Resources' common shares is equal to or greater than C$32.30 for a period of 30 consecutive trading days. The Franco Warrants expire on May 9, 2023.

The exercise price of the Franco Warrants is denominated in Canadian Dollars; however, the functional currency of the Company is the U.S. Dollar. As a result of this difference in currencies, the proceeds that will be received by the Company are not fixed and will vary based on foreign exchange rates and the warrants are a derivative and are required to be recognized and measured at fair value at each reporting period. Any changes in fair value from period to period are recorded as a gain or loss in the Consolidated Statements of Operations. There are no circumstances in which the Company would be required to pay any cash upon exercise or expiry of the warrants.

A reconciliation of the change in fair values of the derivative is below:

		Fair Value of Warrant Derivative
Balance, December 31, 2020	$	874,864
Change in fair value of warrant derivative		(774,094)
Balance, December 31, 2021	$	100,770
Change in fair value of warrant derivative		(99,038)
Balance, December 31, 2022	$	1,732

The fair value of the warrants was calculated using the Black-Scholes valuation model. As of December 31, 2022 and 2021, the inputs used in the Black-Scholes valuation model are:

	Years ended	
	December 31, 2022	December 31, 2021
Share price	C$3.95	C$5.65
Exercise price	C$12.30	C$12.30
Expected term (in years)	0.4	1.4
Expected share price volatility	82%	72%
Annual rate of quarterly dividends	0%	0%
Risk-free interest rate	4.0%	1.0%

7. Convertible Notes

On March 17, 2016, the Company issued unsecured convertible notes (the "2016 Notes") for gross proceeds of $38.5 (C$50.0) million and a maturity date of March 17, 2023. On March 17, 2020, the Company issued a second round of unsecured convertible notes (the "2020 Notes") for gross proceeds of $35.0 (C$47.6) million and a maturity date of March 17, 2027. Both sets of notes, collectively the "Convertible Notes", had identical features and bore interest at a rate of 0.05% per annum, payable annually in cash or common shares (at the Company's election) or added to the principal and payable on maturity. The holders of the Convertible Notes could convert any portion of their Convertible Notes at any time prior to the maturity date into common shares of the Company, at a price of C$3.541 per share for the 2016 Notes and a price of C$4.655 for the 2020 Notes.

On August 26, 2020, convertible notes in the aggregate principal amount of C$82,102,500 (C$34,502,500 of the 2016 Notes and C$47,600,000 for all 2020 Notes), were converted for 19,969,280 common shares of the Company. During the year ended December 31, 2021, the remaining 2016 Notes in the aggregate principal amount of C$15,409,901 were converted for 4,351,850 common shares of the Company.

As of December 31, 2022 and December 31, 2021, the Corporation has no outstanding convertible notes. During 2021, interest payments were made to note holders in cash, in the amount of $7,190. The components of the Convertible Notes activity during the years ended December 31, 2022 and 2021, including conversion related activity are as follows:

		Convertible Notes
Balance, December 31, 2020	$	9,562,293
Conversions		(10,263,119)
Accretion and interest expense		362,545
Interest payments		(7,190)
Foreign exchange adjustments		345,471
Balance, December 31, 2021 and December 31, 2022	$	—

Each set of Convertible Notes were deemed to contain an embedded derivative (collectively, the "Convertible Note Derivatives") relating to the conversion option. Convertible Note Derivatives related to each set of Convertible Notes were valued upon initial recognition at fair value using partial differential equation methods and are subsequently re-measured at fair value at each period end through the Consolidated Statements of Operations. The components of the derivatives, collectively the "Convertible Note Derivatives", are summarized as follows:

		Convertible Note Derivative
Balance, December 31, 2020	$	26,060,446
Conversions		(20,920,535)
Fair value adjustment		(5,710,557)
Foreign exchange adjustments		570,646
Balance, December 31, 2021 and 2022	$	—

Upon conversion of the remaining Convertible Notes in 2021, the fair value of the Convertible Note Derivatives and the carrying value of the Convertible Notes, on that date, were reclassified to share capital.

The fair value of the Convertible Note Derivatives at the conversion date in 2021 was considered to be the intrinsic value, which is the share price on the date of conversion minus the conversion price.

8. Equity

a. *Authorized*

- Unlimited number of common shares without par value.
- Unlimited number of first preferred shares without par value.
- Unlimited number of second preferred shares without par value.

On January 27, 2021, the Company completed a one-for-ten (1:10) reverse share split of all of its issued and outstanding common shares ("Share Consolidation"), resulting in a reduction of the issued and outstanding common shares from 475,227,060 to 47,522,706. The number of shares reserved under the Company's equity and incentive plans were adjusted to reflect the Share Consolidation. All share, per share data, and warrant and option exercise prices presented in the Company's consolidated financial statements have been retroactively adjusted to reflect the Share Consolidation unless otherwise noted.

In August 2021, the Company issued 10,952,382 common shares at a price of $5.25 per common share for gross proceeds of approximately $57.5 million with transaction costs of $3.2 million. The net proceeds of the issuance were $54.3 million. The Company sold no shares of its common stock during the year ended December 31, 2022.

b. *Share based compensation*

On March 8, 2021, the Company adopted the Omnibus Equity Incentive Plan (the "Plan") to provide the Corporation with share-related mechanisms to attract, retain and motivate qualified directors, employees and consultants of the Company and its subsidiaries, to reward such of those directors, employees and consultants as may be granted awards under this Plan by the Board from time to time for their contributions toward the long-term goals and success of the Corporation and to enable and encourage such directors, employees and consultants to acquire shares as long-term investments and proprietary interests in the Corporation. The Plan was approved by the Corporation's shareholders on April 16, 2021.

The Plan allows for awards in the following forms: stock purchase option, restricted share unit, performance share unit or deferred share unit. Under the terms of the Plan, the aggregate maximum number of shares that may be issued pursuant to awards granted under the Plan cannot exceed 4,280,530 shares. Shares delivered under the Plan can be: 1) authorized but unissued shares, 2) treasury shares, or 3) shares purchased on the open market or by private purchase.

Prior to adoption of the Plan, the Company had the Evergreen Incentive Stock Option Plan (the "Former Plan") in place. Under the terms of the Former Plan, options may be exercisable over periods not to exceed ten years as determined by the Board of Directors of the Corporation and the exercise price could not be less than the five-day weighted-average share price on the day preceding the award date, subject to regulatory approval. The Former Plan included a Stock Appreciation Rights ("SAR") clause which allows individuals the option to terminate vested options and receive shares in lieu of the benefits which would have been received had the options been exercised. Stock options granted were subject to vesting, typically with one quarter vesting upon issuance and one quarter vesting on each anniversary from the date of grant.

Share based compensation for the years ended December 31, 2022 and 2021 was recognized in the Consolidated Statements of Operations as follows:

	December 31, 2022	December 31, 2021
Exploration	$ 1,346,515	$ 2,167,722
Professional Fees	—	8,080
Corporate salaries and benefits	1,066,398	1,006,389
Directors' fees	530,545	767,013
Total	$ 2,943,458	$ 3,949,204

Share Purchase Options

A summary of share purchase option activity within the Company's share-based compensation plan for the years ended December 31, 2022 and December 31, 2021 is as follows:

	Number of Options	Weighted Average Exercise Price (C$)
Balance December 31, 2020	1,959,588	$ 7.40
Options granted	1,013,500	11.40
Options expired	(240,550)	9.17
Options cancelled or forfeited	(109,850)	6.00
Options exercised	(125,538)	4.99
Balance, December 31, 2021	2,497,150	$ 9.15
Options granted	—	—
Options expired	(305,000)	8.71
Options cancelled or forfeited	(246,500)	9.11
Options exercised	—	—
Balance, December 31, 2022	1,945,650	$ 9.23

During the years ended December 31, 2022 and 2021, the Company's total share based compensation from options was $1,084,969 and $3,636,761, respectively.

The fair value of options granted is estimated at the time of the grant using the Black-Scholes option pricing model. The grant date fair value of options granted during the year ended December 31, 2021 was approximately $5.2 million. No options were granted during the year ended December 31, 2022. The risk-free interest rate is based on the government security rate with an equivalent term in effect as of the date of grant. The expected option lives and volatility assumptions are based on historical data of the Company. The weighted average inputs used in the Black-Scholes option pricing model for options granted during the year ended December 31, 2021 are:

	December 31, 2021
Fair value options granted	$ 5.14
Risk-free interest rate	0.5%
Expected term (in years)	5.0
Expected share price volatility	72%
Expected dividend yield	—

An analysis of outstanding share purchase options as of December 31, 2022 is as follows:

	Options Outstanding			Options Exercisable		
Range of Exercise Prices (C$)	Number	Price (C$) [1]	Remaining Life[2]	Number	Price (C$) [1]	Remaining Life[2]
$3.50 - $5.90	207,650	5.20	0.76	183,900	5.36	0.57
$5.91 - $7.20	430,875	6.26	1.96	356,250	6.27	1.95
$7.21 - $9.70	531,625	9.46	1.48	421,625	9.54	1.03
$9.71 - $11.80	775,500	11.80	3.06	387,750	11.80	3.06
$3.50 - $11.80	1,945,650	9.23	2.14	1,349,525	8.76	1.79

1 Weighted Average Exercise Price (C$)
2 Weighted Average Remaining Contractual Life (Years)

As of December 31, 2022, all unvested options are expected to vest and unvested compensation of approximately $331,475 will be recognized over the next year. As of December 31, 2022, the intrinsic value of outstanding and exercisable share purchase options is $14,947 and $11,211, respectively. During the year ended December 31, 2021, the intrinsic value of share purchase options exercised was approximately $0.5 million. No share purchase options were exercised during the year ended December 31, 2022.

Restricted Share Units

The following table summarizes activity for restricted share units awarded under the Plan that vest over the required service period of the participant.

	Share Units	Weighted Average Grant Date Fair Value
Unvested, December 31, 2020	—	$ —
Granted	63,500	5.66
Distributed (vested)	(21,166)	5.66
Cancelled	—	—
Unvested, December 31, 2021	42,334	5.66
Granted	370,098	4.04
Distributed (vested)	(36,168)	5.00
Cancelled	(4,308)	4.03
Unvested, December 31, 2022	371,956	$ 4.13

During the years ended December 31, 2022 and 2021, the Company has recognized $949,619 and $142,940, respectively in compensation expense for Restricted Share Units. The Company expects to record an additional $744,231 in compensation expense over the remaining vesting period related to these awards. Unvested units at December 31, 2022 are scheduled to vest as follows:

2023	143,207
2024	121,876
2025	106,873
Total	371,956

Unvested units will be forfeited by participants upon termination of employment in advance of vesting, with the exception of termination by the company not for cause or due to the employee’s death, disability, or retirement if certain criteria are met.

Performance Share Units

The following table summarizes activity for PSUs and market-based performance share units ("MPSUs") awarded under the Plan:

	Share Units	Weighted Average Grant Date Fair Value
Unvested, December 31, 2020	—	$ —
Granted	10,750	5.66
Unvested, December 31, 2021	10,750	5.66
Granted	267,451	6.73
Distributed	(3,750)	3.42
Cancelled	(11,185)	5.83
Unvested, December 31, 2022	263,266	$ 6.77

During the year ended December 31, 2022 and 2021, the Company recognized $510,321 and $12,008 respectively, in compensation expense related to PSUs and MPSUs.

The Company expects to record an additional $1.3 million in compensation expense over the next 2.16 years. The PSUs and MPSUs are scheduled to vest as follows: 14,806 awards in 2023 and 248,460 in 2025.

PSUs: These PSUs vest upon completion of the performance period (through September 2023) and specific performance conditions set forth for each individual grant for individually defined reporting and operating measurement objectives. The Company determines the factor to be applied to that target number of PSUs, with such percentage based on level of achievement of the performance conditions. Upon the achievement of the conditions, any unvested PSUs become fully vested. Certain vesting provisions also apply in the event of the employee's termination of employment by the company without cause or a termination of employment due to the employee's death, disability, or retirement if certain criteria are met. During the year ended December 31, 2022, PSUs awarded had a weighted average grant date fair value of $2.97 per PSU, or $52,048 in total. During the year ended December 31, 2021, PSUs awarded had a weighted average grant date fair value of $5.66 per PSU, or $60,845 in total.

MPSUs: On March 5, 2022, the Company granted MPSUs where vesting is based on the Company's cumulative total shareholder return ("TSR") as compared to the constituents that comprise the VanEck Junior Gold Miners ETF ("GDXJ Index") a group of similar junior gold mining companies, over the period from March 5, 2022 to March 5, 2025 (the "Performance Period"). The ultimate number of MPSUs that vest may range from 0% to 200% of the original target number of shares depending on the relative achievement of the TSR performance measure at the end of the Performance Period. Because the number of MPSUs that are earned will be based on the Company's TSR over the Performance Period, the MPSUs are considered subject to a market condition. Compensation cost is recognized ratably over the Performance Period regardless as to whether the market condition is actually satisfied; however, the compensation cost will reverse if an employee terminates employment prior to satisfying the requisite service period and the award is forfeited. Awards are forfeited upon a termination of employment, with some exceptions in the case of an involuntary termination by the company without cause or a termination of employment due to the employee's death, disability, or retirement if certain criteria are met.

During the year ended December 31, 2022, the Company awarded 249,951 MPSUs that had a weighted grant date fair value of $6.99 per MPSU or approximately $1.75 million in total. The grant date fair value of MPSUs was estimated using a Monte Carlo simulation model. Assumptions and estimates utilized in the model include expected volatilities of the Corporation's share price and the GDXJ Index, the Company's risk-free interest rate and expected dividends. The probabilities of the actual number of MPSUs expected to vest and resultant actual number of shares of common stock expected to be awarded are reflected in the grant date fair values of the various MPSU awards. The per MPSU grant date fair value of $6.99 for the market condition was based on the following variables:

Risk-free interest rate	1.61 %
Expected term (in years)	3.0
Expected share price volatility	63.35 %
Expected dividend yield	—

The expected volatility utilized is based on the historical volatilities of the Corporation's common stock and the GDXJ Index in order to model the stock price movements. The volatility used was calculated over the most recent three year period. The risk-free interest rates used are based on the implied yield available on a U.S. Treasury zero-coupon bill with a term equivalent to the Performance Period. The expected dividend yield of zero was used since it is the mathematical equivalent to reinvesting dividends in each issuing entity over the Performance Period.

Deferred Share Units

The following table summarizes activity for deferred share units ("DSUs") awarded under the Plan:

	Share Units	Weighted Average Grant Date Fair Value
Outstanding, December 31, 2020	—	$ —
Granted	29,213	5.39
Outstanding, December 31, 2021	29,213	5.39
Granted	116,462	3.42
Outstanding, December 31, 2022	145,675	$ 3.82

Under the Plan, the Company may issue DSUs to non-employee directors. During the years ended December 31, 2022 and 2021, 116,462 and 29,213 shares, respectively, with a grant date fair value of $398,549 and $157,495, respectively, were granted to the non-employee directors and the related compensation expense was charged to directors' fees in the Consolidated Statements of Operations. The DSUs are fully vested as of the date of grant.

c. ***Warrants***

There was a total of 200,000 warrants outstanding as of December 31, 2022. These warrants expire in May 2023. See Note 6.

9. Financial Instruments and Fair Value Measurements

The Company's financial instruments include the warrant derivative at December 31, 2022 and 2021. The derivative was valued at fair value at the end of each reporting period. At December 31, 2022 and 2021, the levels in the fair value hierarchy into which the Company's financial assets and liabilities are measured and recognized on the Consolidated Balance Sheets at fair value are categorized as follows:

	Level 1	Level 2	Level 3
	December 31, 2022		
Warrant Derivative (Note 6)	$ —	$ —	$ 1,732
Total	$ —	$ —	$ 1,732
	December 31, 2021		
Warrant Derivative (Note 6)	—	—	$ 100,770
Total	$ —	$ —	$ 100,770

The Company uses the Black-Scholes Option Pricing Model or other valuation models for valuation of its Convertible Note Derivatives and warrant derivative. Valuation models require the input of subjective assumptions including expected share price volatility, interest rate and forfeiture rate. Changes in the input assumptions can materially affect the fair value estimate and the Company's net loss.

10. Income taxes

No benefit (provision) has been recognized for the years ended December 31, 2022 and 2021. The United States and Canada components of net loss for the years ended December 31, 2022 and 2021 are as follows:

	December 31, 2022	December 31, 2021
United States	$ 22,300,354	$ 28,838,629
Canada	6,413,177	7,113,397
Total	$ 28,713,531	$ 35,952,026

The benefit (provision) for income taxes reported differs from the amount computed by applying the applicable income tax rates to the loss before the tax provision due to the following:

	December 31, 2022	December 31, 2021
Income tax benefit computed at statutory rate of 21%	$ (6,029,842)	$ (7,549,925)
State tax, net of federal tax benefit	(875,304)	(1,846,137)
Difference in foreign tax rates	(1,027,801)	(1,920,617)
Change in state tax rate	1,016,106	979,799
Deferred tax adjustments	(94,128)	2,320,679
Change in valuation allowance	6,542,458	6,190,063
Non-deductible tax items:		
(Gain) loss on derivative liability	(26,742)	(209,005)
Share based compensation	726,601	2,010,440
Equity Finance Costs	(251,259)	—
Other	19,911	24,703
Income tax provision (benefit)	$ —	$ —

The significant components of the Company's deferred tax assets are as follows:

	December 31, 2022	December 31, 2021
Net operating loss carryforward – U.S.	$ 41,589,845	$ 37,457,055
Net operating loss carryforward – CAD	9,948,259	8,641,690
Buildings and equipment	453,716	480,916
Mineral interest and properties	37,045,201	35,889,391
Financing costs	573,432	824,691
Environmental obligation	2,651,486	2,584,281
Other	440,276	532,992
Deferred tax assets	92,702,215	86,411,016
Less valuation allowance	(92,702,215)	(86,411,016)
Net deferred tax assets	$ —	$ —

The Company records a valuation allowance if, based on the weight of all available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. As of December 31, 2022 and 2021, the Company has determined that a full valuation allowance is necessary against its net deferred tax assets based on the weight of all available evidence. The resulting valuation allowance recorded against the net deferred tax assets of the Company is approximately $92.7 million and $86.4 million as of December 31, 2022 and 2021, respectively. At December 31, 2022, approximately $573,000 of the allowance balance relates to future tax benefits that will be credited directly to equity once it is recognized. The changes in the valuation allowance for the years ended December 31, 2022 and 2021 are as follows:

	December 31, 2022	December 31, 2021
Valuation allowance on deferred tax assets, beginning of year	$ (86,411,016)	$ (84,812,836)
Change related to:		
Valuation allowance movement recognized in continuing operations	(6,542,458)	(6,190,063)
Valuation allowance movement recognized in equity	(251,259)	4,591,883
Valuation allowance on deferred tax assets, end of year	$ (92,702,215)	$ (86,411,016)

As of December 31, 2022, the Company has U.S. loss carryforwards of approximately $89.3 million that expire in 2029 through 2037 and approximately $82.5 million with no expiration but which are subject to an 80% limitation upon utilization. The Company has state net operating loss carryforwards of approximately $116.4 million that expire in 2032 through 2042 and Canadian loss carryforwards of approximately $36.8 million that expire in 2032 through 2042 available to reduce future years' income for tax purposes. The deferred tax asset table above reflects the tax-effected balances of the Company's net operating loss carryforwards using a 25.74% rate for U.S.-based carryforwards and 27.00% rate for Canada-based carryforwards. Our utilization of U.S. net operating loss carryforwards may be subject to annual limitations under Section 382 of the Code due to changes in control that may have occurred as a result of recent capital transactions.

In 2022, the Company evaluated its tax positions for years which remain subject to examination by major tax jurisdictions and as a result concluded no adjustment was necessary. The Company files income tax returns in the U.S. and Canada federal jurisdictions, the state of Idaho jurisdiction, and the province of British Columbia jurisdiction. The Company had no unrecognized tax benefits as of December 31, 2022 and 2021. The Company recognizes interest accrued related to unrecognized tax benefits and penalties in its income tax provision. U.S. tax returns for the years 2019 to 2021 and Canadian tax returns for the years 2018 to 2021 remain subject to examination but there are currently no ongoing exams in any taxing jurisdictions. Tax returns for years prior to 2019 may remain open with respect to net operating loss carryforwards that are utilized in a later year, as tax attributes from prior years can be adjusted during an audit of a later year.

11. Environmental Reclamation Liabilities

On January 15, 2021, the Company agreed to the ASAOC. The Company has accounted for its obligation under the ASAOC as an environmental reclamation liability. The aggregate cost of the obligation was estimated to be approximately $7,473,805. Upon the signing of the ASAOC, the Company recorded an immediate expense of $7,473,805 and a corresponding environmental reclamation liability. The provision for the liability associated with the terms of the ASAOC is based on cost estimates developed with the use of engineering consultants, independent contractor quotes and the Company's internal development team. The timing of cash flows is based on the current schedule for early action items. The estimated environmental reclamation liability may be subject to change based on changes to cost estimates and is adjusted for actual work performed. Movements in the environmental reclamation liability during the years ended December 31, 2022 and 2021 are as follows:

Balance, December 31, 2020	$	—
Initial estimate		7,473,805
Change in estimate		4,724,846
Work performed on early action items		(2,310,451)
Balance, December 31, 2021		9,888,200
Change in estimate		4,564,611
Work performed on early action items		(3,651,875)
Balance, December 31, 2022	$	10,800,936
Current portion	$	9,590,766
Non-current portion		1,210,170
Balance, December 31, 2022	$	10,800,936

The Company provided $7.5 million in financial assurance for Phase 1 projects under the ASAOC. The Company paid $3 million in cash collateral for a surety bond related to the ASAOC statement of work in early 2021.

12. Commitments and Contingencies

a. *Mining Claim Assessments*

The Company currently holds mining claims on which it has an annual assessment obligation of $275,220 to maintain the claims in good standing. The Company is committed to these payments indefinitely. Related to the Mining Claims Assessments is a $335,000 bond related to the Company's exploration activities.

b. *Stibnite Foundation*

Upon formation of the Stibnite Foundation on February 26, 2019, the Company became contractually liable for certain future payments to the Stibnite Foundation based on several triggering events, including receipt of a final Record of Decision issued by the USFS, receipt of all permits and approvals necessary for commencement of construction, commercial production, and of the final reclamation phase. These payments could begin as early as late 2023 based on the current permitting schedule and individual payments range from $0.1 million to $1 million (upon commencement of final reclamation phase) in cash and 150,000 shares of the Corporation's common stock. During commercial production, the Company will make payments to the Stibnite Foundation equal to 1% of Total Comprehensive Income less debt repayments, or a minimum of $0.5 million each year.

The Stibnite Foundation will support projects that benefit the communities surrounding the Stibnite Gold Project and was created through the establishment of the Community Agreement between Perpetua Resources Idaho, Inc. and eight communities and counties throughout the West Central Mountains region of Idaho.

c. *Option Payments on Other Properties*

The Company is obligated to make option payments on mineral properties in order to maintain an option to purchase these properties. As of December 31, 2022, the option payments due on these properties in 2023 are $180,000, which will be paid next year. The agreements include options to extend.

d. Off balance sheet arrangements

The Corporation has no off-balance sheet arrangements as of December 31, 2022 and the date of this Annual Report.

e. Legal Update

The Corporation and its subsidiaries are a party to an ongoing legal proceeding with the Nez Perce Tribe for alleged violations of the Clean Water Act ("CWA") related to historical mining activities. In August 2019, the Nez Perce Tribe filed suit in the United States District Court for the District of Idaho. The Corporation promptly filed a motion to dismiss and, in the alternative, a motion to stay the litigation. Both motions were denied. Subsequently, the Corporation filed an answer denying liability which, later, the court allowed the Corporation to amend and file a third-party complaint against the Forest Service. The Corporation also filed a separate CWA citizen suit against the United States Forest Service ("USFS" or "Forest Service") alleging the point source discharges, as alleged by the Nez Perce Tribe in its complaint, were occurring on lands owned and controlled by the United States. Pursuant to the terms of the voluntary ASAOC executed with the U.S. EPA and the United States Department of Agriculture, the Corporation agreed to dismiss its pending actions against the Forest Service without prejudice. The remaining parties to the ongoing legal proceeding agreed to stay the litigation and explore Alternative Dispute Resolution ("ADR") options through court-ordered mediation. The stay has been extended on subsequent occasions, and a request to extend the stay through June 30, 2023 was requested jointly by the Company and the Nez Perce Tribe during a February 21, 2023 status conference and subsequently ordered by the court on the same day.

The voluntary CERCLA ASAOC entered into by the Corporation, the U.S. EPA, and the United States Department of Agriculture requires numerous early cleanup actions to occur over the next several years at the Stibnite Gold Project site (the "Stibnite Site"). Perpetua Resources Idaho, Inc. is presently developing and executing the Phase 1 early cleanup actions (known under CERCLA as "time critical removal actions") that, after final work plan approval by the federal agencies, are being constructed to efficiently improve water quality in a number of areas on the Stibnite Site. Construction of time critical removal actions began in the summer of 2022, and significant progress was achieved to complete the voluntary Phase 1 Stibnite Site cleanup during the limited work season. Other longer-term proposed actions relating to Project operations are being evaluated through the NEPA process.

13. Government Grants:

In September 2022, the Company was awarded two separate funding grants from the U.S. Department of Defense ("DOD") Defense Logistics Agency ("DLA") totaling $200,000 to study the domestic production of military-grade antimony trisulfide. During the year ended December 31, 2022, $75,000 was recognized as grant income for these grants. The Company anticipates receiving $125,000 additional grant income over the next 9 months.

On December 16, 2022, the Company entered into an undefinitized Technology Investment Agreement ("TIA") with the DOD - Air Force Research Laboratory for an award of up to $24,800,000 under Title III of the DPA. The funding objective of the TIA is to complete environmental and engineering studies necessary to obtain a Final Environmental Impact Statement, a Final Record of Decision, and other ancillary permits to sustain the domestic production of antimony trisulfide capability for defense energetic materials at the Stibnite Gold Project. Proceeds from the grant will be used primarily to reimburse the Company for certain costs incurred over the next 24 months related to environmental baseline data monitoring, environmental and technical studies and other activities related to advancing the Company's construction readiness and the permitting process for the Stibnite Gold Project. During the year ended December 31, 2022, $0 was recognized as grant income related to the TIA but the Company expects to begin reporting grant income in 2023.

Accounting for these DOD grants does not fall under ASC 606, Revenue from Contracts with Customers, as the DOD does not meet the definition of a customer under this standard. The DOD grant proceeds, which will be used to reimburse expenses incurred, meet the definition of grants related to expenses as the primary purpose for the payments is to fund research and development on trisulfides and the advancement of the Company's Stibnite Gold Project.

A total of $75,000 grant income was recognized within other income (expense) on the Consolidated Statement of Operations during the year ended December 31, 2022. No grant income was recognized in 2021. At December 31, 2022, grant receivable is $50,000 and is included in receivables on the consolidated balance sheet.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

The Company's management, with the participation of the Company's Chief Executive Officer and Principal Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures as of December 31, 2022 (the "Evaluation Date"). Based on that evaluation, the Company's Chief Executive Officer and Principal Financial Officer concluded that the Company's disclosure controls and procedures were effective as of December 31, 2022.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act, for the Company.

Our internal control over financial reporting includes those policies and procedures that: (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States of America ("GAAP"), and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Management conducted an evaluation of the effectiveness of our internal control over financial reporting, as of the Evaluation Date, based on the framework set forth in Internal Control-Integrated Framework 2013 issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on its evaluation under this framework, management concluded that our internal control over financial reporting was effective as of the Evaluation Date.

This annual report does not include an attestation report of our registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by our registered public accounting firm pursuant to rules of the Securities and Exchange Commission that permit us to provide only management's report in this annual report.

Attestation Report of the Registered Public Accounting Firm.

This Annual Report does not include an attestation report of our independent registered public accounting firm due to a transition period established by the rules of the SEC for emerging growth companies.

Changes in Internal Control Over Financial Reporting.

As of the Evaluation Date, there were no changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2022 that have materially affected, or that are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this Item is incorporated herein by reference to the information that will be contained in our proxy statement related to the 2023 Annual Meeting of Shareholders, which we intend to file with the SEC within 120 days of the end of our fiscal year pursuant to General Instruction G(3) of Form 10-K.

Item 11. Executive Compensation.

The information required by this Item is incorporated herein by reference to the information that will be contained in our proxy statement related to the 2023 Annual Meeting of Shareholders, which we intend to file with the SEC within 120 days of the end of our fiscal year pursuant to General Instruction G(3) of Form 10-K.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this Item is incorporated herein by reference to the information that will be contained in our proxy statement related to the 2023 Annual Meeting of Shareholders, which we intend to file with the SEC within 120 days of the end of our fiscal year pursuant to General Instruction G(3) of Form 10-K.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this Item is incorporated herein by reference to the information that will be contained in our proxy statement related to the 2023 Annual Meeting of Shareholders, which we intend to file with the SEC within 120 days of the end of our fiscal year pursuant to General Instruction G(3) of Form 10-K.

Item 14. Principal Accountant Fees and Services.

The information required by this Item is incorporated herein by reference to the information that will be contained in our proxy statement related to the 2023 Annual Meeting of Shareholders, which we intend to file with the SEC within 120 days of the end of our fiscal year pursuant to General Instruction G(3) of Form 10-K.

PART IV

Item 15. Exhibit and Financial Statement Schedules.

(a) The following documents are filed as part of the report:

(1) Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm (PCAOB ID No. 238)

Consolidated Balance Sheets as of December 31, 2022 and 2021

Consolidated Statements of Operations for the Years Ended December 31, 2022 and 2021

Consolidated Statements of Changes in Shareholders' Equity for the Years Ended December 31, 2022 and 2021

Consolidated Statements of Cash Flows for the Years Ended December 31, 2022 and 2021

Notes to the Consolidated Financial Statements

(2) Financial Statement Schedules

All schedules have been omitted as they are either not required or not applicable or the required information is included in the Consolidated Financial Statements or notes thereto.

(3) See Item 15(b)

(b) Exhibits:

Exhibit No.	Exhibit or Financial Statement Schedule
3.1	Certificate of Incorporation of Perpetua Resources Corp. (incorporated by reference to Exhibit 4.1 of the Company's Registration Statement on Form S-8 (File No. 333-255147) filed with the SEC on April 9, 2021).
3.2	Notice of Articles and Articles filed under the Business Corporations Act (British Columbia) (incorporated by reference to Exhibit 4.2 of the Company's Registration Statement on Form S-8 (File No. 333-255147) filed with the SEC on April 9, 2021).
3.3	Certificate of Change of Name (incorporated by reference to Exhibit 4.3 of the Company's Registration Statement on Form S-8 (File No. 333-255147) filed with the SEC on April 9, 2021).
3.4	Amendment to Articles, dated May 25, 2022 (incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K, filed with the SEC on May 27, 2022).
4.1	Description of Common Shares (incorporated by reference to Exhibit 4.1 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2022, filed with the SEC on August 12, 2022).
10.1	Amended and Restated Investor Rights Agreement between Midas Gold Corp., Idaho Gold Resources Company, LLC and Paulson & Co. Inc., dated March 17, 2020 (incorporated by reference to Exhibit 99.50 of the Company's Registration Statement on Form 40-F (File No. 000-56206) filed with the SEC on September 23, 2020).
10.2*#	Technology Investment Agreement between the United States of America and Perpetua Resources Idaho, Inc., dated December 16, 2022.
10.3*+	Employment Agreement between Laurel Sayer and Perpetua Resources Corp. (incorporated by reference to Exhibit 10.7 of the Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2021, filed with the SEC on March 18, 2022).
10.4*+	Employment Agreement between Jessica Largent and Perpetua Resources Corp. (incorporated by reference to Exhibit 10.8 of the Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2021, filed with the SEC on March 18, 2022).
10.5*+	Amendment to Employment Agreement between Jessica Largent and Perpetua Resources Idaho, Inc. (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2022).
10.6*+	Employment Agreement between Alan Haslam and Perpetua Resources Corp. (incorporated by reference to Exhibit 10.9 of the Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2021, filed with the SEC on March 18, 2022).
10.7*+	Employment Agreement between Mckinsey Lyon and Perpetua Resources Corp. (incorporated by reference to Exhibit 10.11 of the Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2021, filed with the SEC on March 18, 2022).
10.8*+	Employment Agreement between Michael Bogert and Perpetua Resources Corp. (incorporated by reference to Exhibit 10.12 of the Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2021, filed with the SEC on March 18, 2022).
10.9+	Omnibus Equity Incentive Plan (incorporated by reference to Exhibit 4.4 of the Company's Registration Statement on Form S-8 (File No. 333-256925) filed with the SEC on June 9, 2021).
10.10+	2011 Evergreen Incentive Stock Option Plan (incorporated by reference to Exhibit 4.4 of the Company's Registration Statement on Form S-8 (File No. 333-255147) filed with the SEC on April 9, 2021).
10.11*+	Form Time-Based Stock Option Award Agreement under the Stock Option Plan (US) (incorporated by reference to Exhibit 10.18 of the Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2021, filed with the SEC on March 18, 2022).
10.12*+	Form Time-Based Stock Option Award Agreement under the Stock Option Plan (Canada) (incorporated by reference to Exhibit 10.19 of the Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2021, filed with the SEC on March 18, 2022).
10.13*+	Form Performance-Based Stock Option Award Agreement under the Stock Option Plan (incorporated by reference to Exhibit 10.20 of the Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2021, filed with the SEC on March 18, 2022).
10.14*+	Form Restricted Share Unit Award Agreement under the Omnibus Plan (incorporated by reference to Exhibit 10.21 of the Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2021, filed with the SEC on March 18, 2022).

10.15*+	Form Performance Share Unit Award Agreement under the Omnibus Plan (incorporated by reference to Exhibit 10.22 of the Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2021, filed with the SEC on March 18, 2022).
10.16*+	Form Deferred Share Unit Agreement under the Omnibus Plan (incorporated by reference to Exhibit 10.23 of the Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2021, filed with the SEC on March 18, 2022).
10.17+	Form Former Director Consulting Agreement (incorporated by reference to Exhibit 10.24 of the Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2021, filed with the SEC on March 18, 2022).
10.18+	Short-Term Incentive Plan (incorporated by reference to Exhibit 10.25 of the Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2021, filed with the SEC on March 18, 2022).
10.19	Transition Agreement between Midas Gold Corp. and Paulson & Co. Inc., dated December 3, 2020 (incorporated by reference to Exhibit 10.26 of the Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2021, filed with the SEC on March 18, 2022).
21.1	Subsidiaries of the Company (incorporated by reference to Exhibit 21.1 of the Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2021, filed with the SEC on March 18, 2022).
23.1	Consent of PricewaterhouseCoopers LLP.
23.2	Consent of Christopher Dail.
31.1	Certification of Chief Executive Officer pursuant to Section 302 of Sarbanes-Oxley Act of 2002 (Rule 13a-14 and 15d-14 of the Exchange Act).
31.2	Certification of Principal Financial Officer pursuant to Section 302 of Sarbanes-Oxley Act of 2002 (Rule 13a-14 and 15d-14 of the Exchange Act).
32.1	Certification of Chief Executive Officer pursuant to Section 1350 of Title 18 of the United States Code.
32.2	Certification of Principal Financial Officer pursuant to Section 1350 of Title 18 of the United States Code.
96.1	Technical Report Summary, Revision 1, amended as of June 6, 2022 (incorporated by reference to Exhibit 96.1 of the Company's Current Report on Form 8-K filed with the SEC on June 8, 2022).
101.INS	XBRL Instance Document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

+ Compensatory plan or agreement.
* Portions of this exhibit have been redacted in compliance with Regulation S-K Item 601(b)(10)(iv).
# Schedules have been omitted pursuant to Regulation S-K Item 601(b)(2). The Company agrees to furnish to the SEC a copy of any omitted schedule upon request.

Item 16. Form 10-K Summary.

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

PERPETUA RESOURCES CORP.

Date: March 16, 2023

By: /s/ Laurel Sayer
Name: Laurel Sayer
Title: President, Chief Executive Officer and Director

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Report has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Laurel Sayer Laurel Sayer	President, Chief Executive Officer and Director *(Principal Executive Officer)*	March 16, 2023
/s/ Jessica Largent Jessica Largent	Chief Financial Officer *(Principal Financial and Accounting Officer)*	March 16, 2023
/s/ Marcelo Kim Marcelo Kim	Chairman	March 16, 2023
/s/ Bob Dean Bob Dean	Director	March 16, 2023
/s/ David Deisley David Deisley	Director	March 16, 2023
/s/ Jeff Malmen Jeff Malmen	Director	March 16, 2023
/s/ Chris Papagianis Chris Papagianis	Director	March 16, 2023
/s/ Chris Robison Chris Robison	Director	March 16, 2023
/s/ Alex Sternhell Alex Sternhell	Director	March 16, 2023
/s/ Laura Dove Laura Dove	Director	March 16, 2023

Exhibit 10.2

Technology Investment Agreement

between
The United States Of America

USAF/AFMC
AFRL WRIGHT RESEARCH SITE
2130 EIGHTH STREET BUILDING 45
WRIGHT-PATTERSON AFB OH 45433-7541

and

PERPETUA RESOURCES IDAHO INC 405 S 8TH ST
STE 201
BOISE ID 83702-7100
(208) 901-3060
CAGE: 9AXR4

Concerning
Defense Production Act Title III Program, Antimony Trisulfide Production Capability for Defense Energetic Materials

Agreement No.: FA8650-23-2-5522

Total Amount of the Agreement: $24,800,000.00

Government share: $24,800,000.00

Recipient share: $0.00

Authority: 10 U.S.C 4001 & Title III DPA 1950

Effective Date: 16 DEC 2022

Catalog of Federal Domestic Assistance number: 12.777

Notice:

For Perpetua Resources	*For the United States of America*
//signed//	//signed//
Name: LAUREL SAYER	WHITNEY L. FOXBOWER
Title: President and CEO	*Agreements Officer*

Distribution A. Approved for Public Release AFRL-2023-1298 Date 16 Mar 2023

[***] CERTAIN IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT PURSUANT TO REGULATION S-K, ITEM 601(b)(10) BECAUSE IT IS BOTH NOT MATERIAL AND IS THE TYPE THAT THE REGISTRANT TREATS AS PRIVATE OR CONFIDENTIAL.

ATTACHMENTS	PGS	DATE	TITLE
ATTACHMENT 1A	3	12 DEC 2022	NTE NOTIFICATION
ATTACHMENT 1B	43	12 DEC 2022	AGREEMENT ARTICLES
ATTACHMENT 2	1	12 DEC 2022	TIA DEFINITIZATION NOTICE
ATTACHMENT 3	6	16 DEC 2022	STATEMENT OF OBJECTIVE
ATTACHMENT 4	4	12 DEC 2022	STRATEGIC BUSINESS PLAN OUTLINE
ATTACHMENT 5	1	12 DEC 2022	FUNDS AND MANHOUR EXPENDITURE REPORT
ATTACHMENT 6	3	12 DEC 2022	MARKETING PLAN OUTLINE
ATTACHMENT 7	1	12 DEC 2022	PROPERTY CONTROL
ATTACHMENT 8	1	12 DEC 2022	COST SHARING SUMMARY AND SCHEDULE - IF NEEDED

1. The purpose of this action is to issue a Not-To-Exceed Authority for the Defense Production Act (DPA) Title III Program entitled: "Securing the Only Domestic Antimony Trisulfide Production Capability for Defense Energetic Materials".

2. Under the authority of Title III of the DPA of 1950 and as amended, the Air Force has the objective of sustaining the domestic production of antimony trisulfide capability for defense energetic materials.

3. This undefinitized Technology Investment Agreement (TIA) hereby provides authorization to proceed immediately with the proposed effort, IAW DPA Funding Opportunity Announcement (FOA) (FA8650-19-S-5010), white paper entitled "Securing the only domestic antimony trisulfide production capability for defense energetic materials" dated 1 November 2022 and attached SOO, at a NTE cost of **$24,800,000.00**.

4. The anticipated period of performance, to be negotiated and definitized, for this effort is **27 months**, including 24 months for the technical effort and 3 months for delivery of the Final Report.

5. This effort will support all environmental baseline data monitoring, along with environmental and technical studies that support advancing ancillary permitting efforts, which is critical to national defense and the industrial base, and is of utmost urgency.

6. The Air Force intends to definitize this NTE TIA via a modification to this Technology Investment Agreement in accordance with the following schedule:

   a. Date for submission of the qualifying proposal: 27 Jan 2023
   b. Date for the start of negotiations: 9 Feb 2023
   c. Target date for definitization: 16 April 2023

7. Please see Attachment 2, Technology Investment Agreement Definitization. Execution of this undefinitized Technology Investment Agreement NTE certifies and incorporates agreement of this attachment.

8. **Limitation of Government Liability: $18,600,000.00, 75%** of the NTE amount, is the amount available to cover requirements prior to definitization. The Recipient shall not incur costs/expend funds (exclusive of recipient cost-share contribution) in excess of this amount without prior written direction by the Government Agreements Officer, identified below. In addition, the Recipient must notify the Agreements Officer when your expenditures reach 75% of this amount prior to definitization. If all funds are expended prior to the end of the term, the parties have no obligation to continue and may elect to cease performance at that point. ***Only the Agreements Officer has the authority to provide direction.***

9. While the Recipient may not exceed the total allotted funding amount of **$18,600,000.00** prior to award of a definitive agreement, the amount of the definitive agreement will be negotiated since the initial NTE will be based on a Rough Order of Magnitude (ROM); **the NTE may only be negotiated downward**.

10. The qualifying proposal for the subject effort, **due no later than 27 Jan 2023**, should follow the requirement of the DPA FOA referenced above, including, but not limited to, the following:

    a. Proposals must reference the announcement number FA8650-19-S-5010; the relevant Topic Area - Sustainment of Critical Production; the title of this effort and this Technology Investment Agreement number.
    b. Domestic Source Requirement: The proposal must provide proof of meeting the Domestic Source requirement IAW DPA Law.
    c. *Technical Proposal: The technical proposal shall include, as a minimum, 1) Cover Page, 2) Table of Contents, 3) proposed technical approach, to include background / scope / project objectives, and technical discussion, and 4) a project Master Schedule highlighting all significant activities and major project milestones.
    d. *Cost Proposal: The cost proposal volume shall identify any company cost share and list any proposed equipment to be procured. Please provide justification if you do not propose a cost share. The technical and cost proposals, project Master Schedule and Statement of Work shall all be presented in a Work Breakdown Structure (WBS) format. Additionally, please provide a Microsoft Excel spreadsheet containing your cost breakdown as part of your electronic submittal.

*Please follow proposal formats cited in the FOA, Section IV, *Open FOA (Two-Step Process)*, Paragraph 6 *Open FOA Proposal (Step Two) Content and Form*, with the exception of Paragraph d *Proposal Submission.* Please electronically submit the technical and cost proposal to the DoD Safe at https://safe.apps.mil/. In order to do so, you must email the Agreements Officer and include the Agreements Negotiator below with a request to invite:

Agreements Officer
Mrs. Whitney Foxbower,
AFRL/RXKMT
[***]

Agreements Negotiator
Mr. Aaron Pitts,
AFRL/RXKMT
[***]

One of the above POC's will in turn send the DoD Safe invite via email for you to submit the electronic proposal.

The proposal will be evaluated IAW FOA Section V., *Open FOA (Step Two) Proposal Review Information*, to ensure it meets the DPA Title III Program requirements. Cost will be evaluated IAW V.1.i (5) *Cost/Price*. The proposal will be categorized and selected IAW FOA Section VI *Open FOA (Step Two) Proposal Selection Information*. Please note, your proposal will be reviewed by non-government personnel functioning as technical advisors to the Government Program Manager. These advisors, who are the same contractors identified in the FOA, will review the proposal submitted in response to this request; however, they will not be directly involved with any decision making relative to this project. Non-governmental personnel currently maintain nondisclosure agreements with the government prohibiting them from disclosing any submittal information.

11. While the Air Force has set aside and budgeted funds for this effort, the issuance of this undefinitized Technology Investment Agreement is not to be construed to mean that award of a definitized agreement is assured, as final availability of funds and successful negotiations are prerequisites to any award.

12. Review all attachments, including the draft articles, in preparation for negotiations and definitization. However, be advised that the document awarded may include articles in addition to those attached and articles may be deleted or modified depending on the requirements of this program. Any additions or deletions will be discussed prior to award of the document. In the interest of streamlining and in order to be in position to award within the definitization schedule, it is imperative that you review the sample articles and provide any exception to terms and conditions.

TABLE OF CONTENTS

1.00 AUTHORITY (MAR 2020)

This agreement is being issued under the authority of 10 U.S.C. 4001 and Title III of the Defense Production Act of 1950, as amended (50 U.S.C. 4501 et seq.)

1.01 ORDER OF PRECEDENCE (APR 2000) (TAILORED)

In the event of conflict between the terms of this agreement and other governing documents, the conflict shall be resolved by giving precedence in descending order as follows:

(a) The articles in this agreement
(b) The attachments to this agreement, if any
(c) DoD Grant and Agreement Regulations (Chapter 1, Subchapter C of Title 32, Code of Federal Regulations (CFR) and Chapter XI of Title 2, CFR)
(d) Other applicable Federal statutes and regulations

1.02 ADMINISTRATIVE RESPONSIBILITIES (MAR 2020)

(a) Government representatives are:

Agreements Officer:

[***]

Agreements Negotiator:

[***]

Government Program Manager:

[***]

Finance:

[***]

Administration Office:

[***]

Payment Office:

[***]

For invention reporting

[***]

(b) Recipient's representatives are:

[***][***]

1.003 DELEGATION OF ADMINISTRATION (MAR 2015)

The administrative duties listed below have been delegated to the agreements administration office:

(a) During performance:

(1) Approve provisionally all Requests for Advance or Reimbursement (SF 270).
(2) Perform property administration.
(3) Perform plant clearance.
(4) Approve requests for Registration of Scientific and Technical Information Services (DD Form1540).
(5) Perform cash management by reviewing quarterly Federal Financial Report (SF 425) and, after conferring with the AFRL agreements officer, make appropriate adjustments to predetermined scheduled payments by modifying the agreement.

(b) Upon expiration of agreements:

(1) Obtain final payment request, if any.
(2) Obtain the final Federal Financial Report (SF 425).
(3) Obtain final property report and dispose of Government property on those assistance awards containing residual Government Property.
(4) Perform a review of final incurred costs and assist the awarding agreements officer in resolving exceptions, if any, resulting from questioned costs.
(5) Perform cost sharing adjustments, if applicable.
(6) Assure that all refunds due the Government are received.
(7) Notify the agreements officer when the final SF270 and/or SF425 indicates an unexpended balance.

2.000 TRAFFICKING IN PERSON (DEC 2007)

(a) Provisions applicable to a recipient that is a private entity.

(1) You as the recipient, your employees, subrecipients under this award, and subrecipients' employees may not—

(i) Engage in severe forms of trafficking in persons during the period of time that the award is in effect;
(ii) Procure a commercial sex act during the period of time that the award is in effect; or

(iii) Use forced labor in the performance of the award or subawards under the award.

(2) We as the Federal awarding agency may unilaterally terminate this award, without penalty, if you or a subrecipient that is a private entity –

(i) Is determined to have violated a prohibition in paragraph a.1 of this award term; or
(ii) Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph a.1 of this award term through conduct that is either—
(A) Associated with performance under this award; or
(B) Imputed to you or the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement)," as implemented by our agency at 2 CFR 180

(b) Provision applicable to a recipient other than a private entity. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if a subrecipient that is a private entity—

(1) Is determined to have violated an applicable prohibition in paragraph a.1 of this award term; or

(2) Has an employee who is determined by the agency official authorized to terminate the award to have violated an applicable prohibition in paragraph a.1 of this award term through conduct that is either–
(i) Associated with performance under this award; or
(ii) Imputed to the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement),"' as implemented by our agency at 2 CFR part 180

(c) Provisions applicable to any recipient.

(1) You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph a.1 of this award term.
(2) Our right to terminate unilaterally that is described in paragraph a.2 or b of this section:
(i) Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), and
(ii) Is in addition to all other remedies for noncompliance that are available to us under this award.
(3) You must include the requirements of paragraph a.1 of this award term in any subaward you make to a private entity.

(d) Definitions. For purposes of this award term:

(1) "**Employee**" means either:
(i) An individual employed by you or a subrecipient who is engaged in the performance of the project or program under this award; or
(ii) Another person engaged in the performance of the project or program under this award and not compensated by you including, but not limited to, a volunteer or individual whose services are contributed by a third party as an in-kind contribution toward cost sharing or matching requirements.

(2) "**Forced Labor"** means labor obtained by any of the following methods: the recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery.

(3) "Private Entity":

(i) Means any entity other than a State, local government, Indian tribe, or foreign public entity, as those terms are defined in 2 CFR 175.25.

(ii) Includes:

(A) A nonprofit organization, including any nonprofit institution of higher education, hospital, or tribal organization other than one included in the definition of Indian tribe at 2 CFR 175.25(b).

(B) A for-profit organization.

(4) "**Severe Forms of Trafficking In Persons**," "commercial sex act," and "coercion" have the meanings given at section 103 of the TVPA, as amended (22 U.S.C. 7102).

2.01 TERM OF THE AGREEMENT (APR 2000) TAILORED)

The term of this agreement for this effort is 27 months, 24 months for the technical effort and 3 months for completing the final report, commencing on the effective date shown on the first page of this agreement.
The technical effort will be complete on (enter date), and the final report will be due (enter date).

(a) If all funds are expended prior to the end of the term (including recipient contributions, both cash and in-kind), the parties have no obligation to continue and may elect to cease performance at that point.

(b) Articles in this agreement which by their express terms or by necessary implication, apply for periods of time other than as specified in this article shall be given effect, notwithstanding this article.

2.02 SCOPE OF THE AGREEMENT (MAR 2020)

(a) **Overall Project Intent**. The Parties recognize that the ultimate intent of the project is to address the need to strengthen and expand the industrial base for antimony trisulfide production capability for defense energetic materials.

(b) The Parties recognize the recipient will demonstrate a level of continued commitment in the research project. A portion of this continued commitment supports the Title III objective of economic viability and takes the form of strategic business planning, technical marketing support, and the Recipient's cost share investment. The Recipient will designate the company's existing strategic business plan as the current strategy business baseline with the intention of developing and implementing an enhanced strategic business plan and technical marketing effort that recognizes the increased business and marketing opportunities that result from this agreement.

2.03 TERMINATION (APR 2000)

(a) The Agreements Officer may terminate this agreement by written notice to the recipient upon a finding that the recipient has failed to comply with the material provisions of this agreement.

(b) Additionally, this agreement may be terminated by either party upon written notice to the other party. Such written notice shall be preceded by consultation between the parties. If the recipient initiates the termination, written notification shall be provided to the Agreements Officer at least 30 days prior to the requested effective date. The notification shall state the reasons for the termination, the requested effective date, and, if a partial termination, the portion to be terminated. If the Agreements Officer determines, in the case of a partial termination, that the reduced or modified portion of the award will not accomplish the purpose for which the award was made, the Agreements Officer may terminate the award in its entirety.

(c) The Government and the recipient will negotiate in good faith an equitable reimbursement for work performed toward accomplishment of program goals. The Government will allow full credit to the recipient for the Government share of the obligations properly incurred by the recipient prior to termination, and those noncancellable obligations that remain after the termination. The cost principles and procedures described in the article entitled "Cost Principles" shall govern all costs claimed, agreed to, or determined under this article.

(d) If this agreement is incrementally funded, it may be terminated in the absence of additional Government funding as set forth in the article entitled "Incremental Funding".

(e) In the event of a termination, the Government shall have a paid-up Government purpose license in any subject invention, copyright work, and data made or developed under this agreement.

2.04 EXTENDING THE TERM (APR 2000)

If the parties agree, the term of this agreement may be extended if funds are available and research opportunities reasonably warrant. Any extension shall be formalized through modification of the agreement by the Agreements Officer and the recipient.

3.00 SCOPE AND MANAGEMENT OF THE PROGRAM (JUN 2001) (TAILORED)

(a) The Government and the recipient are bound to each other by a duty of good faith and best effort to achieve the goals of this agreement. This agreement is not intended to be, nor shall it be construed as, by implication or otherwise, a partnership, a corporation, or other business organization.

(b) The recipient shall perform a coordinated research and development program carried out in accordance with the Statement of Objective entitled "DPA Title III Securing the Only Domestic Antimony Trisulfide Production Capability for Defense Energetic Materials" dated 16 December 2022, Attachment 3 to this agreement. The recipient shall submit all documentation required by Part 7, "Technical and Financial Reporting".

(c) The overall management, including technical, programmatic, reporting, financial and administrative matters, of the coordinated research program established under this agreement shall be accomplished by the recipient. The Government program manager will interact with the recipient to promote effective collaboration between the recipient and the Government. Changes to this agreement that would result in

(1) a change in the scope or the objective of the project or program or

(2) a need for additional federal funding must be approved by the Agreements Officer, and the agreement modified in accordance with the article entitled "Modifications".

(d) The recipient will establish a schedule of monthly technical meetings, and notify the Government program manager of the schedule. The Government program manager may participate in all technical meetings. Other Government personnel, as deemed appropriate, may also participate.

3.01 PROGRAM MANAGEMENT PLANNING PROCESS (APR 2000)

(a) The Program Plan provides a detailed schedule of project activities, commits the recipient to use its best efforts to meet specific performance objectives, includes forecasted expenditures and describes the payable milestones if applicable. The Program Plan will consolidate all prior adjustments in the program schedule, including revisions/modifications to payable milestones if applicable.

(b) For the first agreement year, the recipient will follow the plan as set forth in the recipient's proposal.

(c) The plan shall be updated, with Government program manager involvement, in each subsequent agreement year to reflect any changes necessary for conducting research.

3.02 MODIFICATIONS (APR 2000)

(a) Modifications to this agreement may be proposed by either party. Recipient recommendations for any modifications to this agreement, including justifications to support any changes to the statement of work or recipient's proposal as incorporated by reference and/or the payable milestones, shall be submitted in writing to the government program manager with a copy to the Agreements Officer. The recipient shall detail the technical, chronological, and financial impact of the proposed modification to the program. Changes are effective only after the agreement has been modified. Only the Agreements Officer has the authority to act on behalf of the Government to modify this agreement.

(b) The Agreements Officer or Administrative Agreements Officer may unilaterally issue minor or administrative agreement modifications (e.g., changes in the paying office or appropriation data, or changes to Government personnel identified in the agreement, etc.)

3.03 PROPERTY (APR 2000) (TAILORED)

(a) Recipients may purchase real property or equipment in whole or in part with federal funds under an award only with the prior approval of the Agreements Officer (except that additional approval is not required for such items included in the proposed/negotiated budget at the time of award). If the recipient purchases real property (other than land) or equipment with their own funding, and designates the real property or equipment as recipient cost share, the Government will have a financial interest in the real property or equipment. The financial interest of the Government is determined by the Federal participation in the project.

(b) **Equipment** is defined as tangible nonexpendable personal property charged directly to the award having a useful life of more than one year and an acquisition cost of $5,000.00 or more per unit.

(c) Title to all real property and equipment purchased by the recipient with federal funds under this agreement will vest with the Government throughout the agreement. The Government may elect to transfer title to all (or some) of the real property or equipment to the recipient at the end of the agreement, if the recipient's performance is satisfactory, and subject to compliance with the criteria listed below in subparagraphs (c)(1), (c)(2), and (c)(3).

   (1) Use the real property or equipment for the authorized purposes of the project until funding for the project ceases, or until the property is no longer needed for the purposes of the project.

   (2) Not encumber the property without approval of the Agreements Officer.

   (3) Use and dispose of the property in accordance with paragraphs (d), (e), (f), and (g) of this article.

(d) Title to all real property or equipment purchased by the recipient with recipient funds designated as recipient cost share under this agreement, will vest with the recipient subject to subparagraphs (c)(1), (c)(2) and (c)(3) above. As stated in paragraph (a) above, the Government will have a financial interest in the real property or equipment. The Government may relinquish all financial interest in the recipient purchased equipment at the end of the agreement, provided the recipient's performance is satisfactory, and the recipient provides:

   (1) Guaranteed, ongoing responsiveness to DoD requirements for products and services that require use of the equipment.

   (2) If the recipient's performance is not satisfactory the provisions listed above in paragraph (c)(1) through (c)(3) will apply.

(e) During the time the real property or equipment is used on this program, the recipient shall make it available for use on other projects or programs, if such other use will not interfere with the work on this program. Use of the real property or equipment on other projects will be in the following order of priority:

(1) Activities sponsored by DoD Components' grants, cooperative agreements, or other assistance awards;

(2) Activities sponsored by other Federal agencies' grants, cooperative agreements, or other assistance awards;

(3) Activities under Federal procurement contracts;

(4) Activities not sponsored by any Federal agency. If so used, mutually agreed to use charges shall be assessed to those activities. For real property or equipment, the use charges shall be at rates equivalent to those for which comparable real property or equipment may be leased. The use charges shall be treated as program income.

(f) After Federal funding for the project ceases, or when the real property or equipment is no longer needed for the purposes of the project, the recipient may use the real property or equipment for other projects, insofar as:

(1) There are federally sponsored projects for which the real property or equipment may be used. If the only use for the real property or equipment is for projects that have no Federal sponsorship, the recipient shall proceed with disposition of the real property or equipment, in accordance with paragraph (g) of this section.

(2) The recipient obtains written approval from the Agreements Officer to do so. The Agreements Officer shall ensure that there is a formal change of accountability for the real property or equipment to a currently funded, Federal award.

(3) The recipient's use of the real property or equipment for other projects is in the same order of priority as described in paragraph (e) of this section.

(g) **Disposition**. When an item of real property or equipment is no longer needed for Federally sponsored projects, the recipient shall proceed as follows:

(1) If the property that is no longer needed is equipment (rather than real property), the recipient may wish to replace it with an item that is needed currently for the project. In that case, the recipient may use the original equipment as trade-in or sell it and use the proceeds to offset the costs of the replacement equipment, subject to the approval of the Agreements Officer.

(2) The recipient may elect to retain title, without further obligation to the Federal Government, by compensating the Federal Government for that percentage of the current fair market value of the real property or equipment that is attributable to the Federal participation in the project or

(3) The recipient may have an opportunity to retain title to the equipment provided the Government agrees to an exchange for financial resources, technical support, and/or deliverables that are of commensurate value to the Government. Examples include, but are not limited to the following:

- Direct purchase of the equipment by the contractor, with the terms and process for pricing the purchase established.
- Ongoing maintenance and insurance of the equipment.
- Guaranteed, continued government access to the equipment.
- Guaranteed, ongoing responsiveness to DoD requirements for products and services that require use of the equipment.
- Periodic reporting and data relating to the contractor's production capabilities and continued economic viability.

Upon completion of the technical effort, the Title III project may be transitioned into a principally business-focused phase (no-cost monitoring phase) for the remaining accounting life of the equipment. If this alternative is pursued, Title III may choose to conduct periodic reviews with the Recipient assess and ensure that they remain responsive to the continuing and evolving needs of the DoD community. Upon successful completion of this business-focused phase, (typically one to five years), the government may elect to transfer title to the equipment to the Recipient.

(4) If the recipient does not elect to retain title to real property or equipment (see paragraph (g)(2) of this section) or request approval to use equipment as trade-in or offset for replacement equipment (see paragraph (g)(1) of this section), the recipient shall request disposition instructions from the Agreements Officer.

3.04 INSURANCE COVERAGE (MAR 2007)

The Recipient shall insure and be liable for the loss, damage, and/or destruction of all real property and equipment acquired under this agreement with Federal funds. The Recipient shall, at a minimum, provide the equivalent insurance coverage for real property, and equipment acquired under this agreement, as provided to real property and equipment owned by the Recipient. The Recipient will immediately notify the Agreements Officer and DCMA authorities as appropriate, in the event there is an incident of loss, damage, or destruction of the property.

3.05 PROPERTY MANAGEMENT / CONTROL LIST (JUN 2001)

The recipient's property management system shall include the following, for property that is federally owned, and for equipment that is acquired in whole or in part with Federal funds. Attachment 7 Property Control List, shall be utilized for the tracking of property under this Agreement and shall be submitted quarterly to the Government Program Manager identified in the Article 1.002 entitled "Administrative Responsibilities".

(a) Property records shall be maintained, to include the following information:

(1) A description of the property.

(2) Manufacturer's serial number, model number, Federal stock number, national stock number, or any other identification number.

(3) Source of the property, including the award number.

(4) Whether title vests in the recipient or the Federal Government.

(5) Acquisition date (or date received, if the property was furnished by the Federal Government) and cost.

(6) Information from which one can calculate the percentage of Federal participation in the cost of the property (not applicable to property furnished by the Federal Government).

(7) The location and condition of the property and the date the information was reported.

(8) Ultimate disposition data, including date of disposal and sales price or the method used to determine current fair market value where a recipient compensates the Federal Government for its share.

(b) Federally owned equipment shall be marked, to indicate Federal ownership.

(c) A physical inventory shall be taken and the results reconciled with the property records at least once every two (2) years. Any differences between quantities determined by the physical inspection and those shown in the accounting records shall be investigated to determine the causes of the difference. The recipient shall, in connection with the inventory, verify the existence, current utilization, and continued need for the property.

(d) A control system shall be in effect to insure adequate safeguards to prevent loss, damage, or theft of the property. Any loss, damage, or theft of property shall be investigated and fully documented; if the property was owned by the Federal Government, the recipient shall promptly notify the Federal agency responsible for administering the property.

(e) Adequate maintenance procedures shall be implemented to keep the property in good condition.

4.00 COST PRINCIPLES (JUN 2020)

(a) The recipient shall establish or apply cost principles or standards in accordance with DoDGARS 37.625

(b) For-profit participants that currently perform under expenditure-based Federal procurement contracts or assistance awards (other than TIAs) and therefore have existing systems for identifying allowable costs, shall apply the Government cost principles in 48 CFR parts 31 and 231. If there are programmatic or business reasons to do otherwise, the Government Agreements Officer may grant an exception from this requirement and use alternative standards that meet the minimum conditions in DoDGARS 37.625 (b).

(c) For-profit participants that do not currently perform under expenditure-based Federal procurement contracts or assistance awards (other than TIAS), may establish alternative standards as long as the standards meet the minimum conditions outlined in DoDGARS 37.625 (b).

4.01 STANDARDS FOR FINANCIAL MANAGEMENT SYSTEMS (APR 2000)

(a) The recipient shall establish or use existing financial management systems in accordance with DoDGARS 37.615.

(b) For-profit participants that currently perform under other expenditure-based Federal procurement contracts or assistance awards are subject to the same standards for financial management systems that apply to those other awards. If a for-profit participant has expenditure-based DoD assistance awards other than TIAs, apply the standards in 32 CFR 34.11. A for-profit participant that has other expenditure-based Federal Government awards may be granted an exception by the Government Agreements Officer to use an alternative set of standards that meets the minimum criteria in DoDGARS 37.615 (b), if there is a compelling programmatic or business reason to do so.

(c) For-profit participants that do not currently perform under expenditure-based Federal procurement contracts or assistance awards (other than TIAS), shall use its existing financial management system as long as the system meets the minimum criteria outlined in DoDGARS 37.615 (b).

4.02 PAYMENT – REIMBURSEMENT AND COST SHARING – WAWF (DCMA) (MAY 2014)(TAILORED)

(a) The recipient shall be reimbursed by electronically submitting Standard Form (SF) 270, Requests for Advance or Reimbursement, through Wide Area Work Flow (WAWF), https://wawf.eb.mil. Each request for payment shall include the total costs incurred and the amounts of recipient and Government cost share. The Government agrees to reimburse the recipient no more than the Government cost share percentage of all but the final payment requests submitted. The final payment will reflect the percentage representing the balance of Government cost share. Final payment will be made only after delivery and acceptance of the final report prepared in accordance with the article entitled 7.000 "Final Report".

(b) The following codes will be required to route requests and emails correctly through WAWF.

Award Number: FA8650-23-2-5522
Type of Document: SF 270
Cage Code: 9AXR4
Issued By DODAAC: FA8650
Admin DODAAC: S4501A
Government Program Manager: [***]

Service Acceptor Office DODAAC: F4FBCN
Pay Office DODAAC: HQ0339
Approval Office DODAAC: S4501A
Send E-Mail Notifications for Completed SF 270: [***]

(c) The customer service number for Vendor Pay is 800-756-4571 Option 1. Vendors may also check status of payments through MyInvoice, https://MyInvoice.csd.disa.mil. Recipients must register in MyInvoice to gain access.

(d) Alternately, recipients may request reimbursement by submitting original SF 270, "Requests for Advance or Reimbursement", to the Administrative Agreements Officer (AAO) with a copy to the AFRL Grants/Agreements Officer and AFRL Program Manager.

(e) To the maximum extent possible, payments will be made by electronic funds transfer (EFT) after. AGO approval. Recipients may submit requests for monthly reimbursement when EFT payment is not used or as frequently as necessary when EFT payment is used.

(f) Final payment of 1% the Government cost share will be made only after delivery and acceptance of the final report prepared in accordance with the Article entitled "Final Report".

4.03 AUDIT (JUL 2003) (TAILORED)

(a) If the recipient expends $750,000 or more in one year under Federal awards they shall have an audit performed for that year by an independent auditor, in accordance with DoDGARs 34.16 and DoDGARS 37.640 through 37.680. The audit should be made a part of the regularly scheduled, annual audit of the recipient's financial statements. However, the recipient may have Federal awards separately audited, if it elects to do so unless prohibited by Federal laws or regulations. (See DoDGARS Part 37 Appendix C for guidance on the desired coverage for periodic audits.)

(b) Recipients currently working with the Defense Contract Audit Agency (DCAA) on a regular basis, due to the recipient currently performing under other federal awards, shall provide a copy of a DCAA audit to meet the requirements outlined in paragraph (a) above.

(c) The Recipient shall provide a copy of the auditor's report to the Agreements Officer and the agreements administration office within 60 days after audit.

4.04 RETENTION AND ACCESS TO RECORDS - INCORPORATED BY REFERENCE (AUG 2001)

Recipient's financial records, supporting documents, statistical records, and all other records pertinent to an award shall be retained and access to them permitted in accordance with DoDGARs 34.42.

4.05 ALLOTTED FUNDING (OCT 2001)

The following funds are allotted to this agreement:

ACRNs	FUND CITATION(S)	AMOUNT
AA	[***] Descriptive data: MIPR LOA: [***]	$18,600,000

ALD:AA
CIN: HQ06423782410001
JON:

FSR:
DSR:
CSR:

PR AND MIPR PARTIAL

4.06 PROGRAM INCOME – OTHER THAN RESEARCH (APR 2000) TAILORED)

(a) Other than any program/project income excluded pursuant to DoDGARS Part 34.14, paragraphs (a), (b), and (c), program/project income earned during the Title III project period shall be retained by the recipient and used in one or more of the following ways, as specified in program/project regulations or the terms and conditions of the award.

(1) Added to funds committed to the program/project by the DoD Component and recipient and used to further eligible program/project objectives.

(2) Used to finance the recipient cost share (non-Federal share) portion of the program/project.

(b) The recipient has no obligation to the Government for program income earned after the end of the program/project period.

(c) The recipient will have no obligation to the Government for program income earned from license fees and royalties for copyrighted material, patents patent applications, trademarks and inventions produced under the agreement.

(d) The recipient may deduct costs associated with generating program income from gross income to determine program income, provided these costs are not charged to the agreement.

4.07 CONSIDERATION (JUN 2006)

(a) The Recipient agrees that the selling price to the Federal Government for antimony trisulfide will not exceed the price paid by any of the Recipient's customers for the same or similar product or component sold in the same quantities. This article applies both when the Recipient is the prime contractor or when the Recipient is a supplier at any tier for the Federal Government.

(b) In no event shall such price be in excess of the Recipient's sale price to any other of their customers for the same item in like quantity, or the current market price, whichever is lower.

(c) All yield efficiencies resulting from Title III investment will be reflected in USG pricing for a minimum of five years from the conclusion of this agreement.

(d) The above stated stipulations shall remain in effect for a period of five years from the conclusion of this agreement.

4.08 COST SHARING (AUG 2001)

(a) The parties estimate that the research and development work under this Agreement can only be accomplished with the Recipient aggregate resource contribution of **$0** throughout the term of this Agreement. The Recipient agrees to provide the resources in the manner shown in Attachment 8, Cost Sharing Summary and Schedule. Failure of either party to provide its respective total contribution may result in a unilateral modification to the Agreement by the Agreements Officer to reflect a proportional reduction in funding for the other party.

(b) The Recipient's contributions may count as cost sharing only to the extent that they comply with DoDGARs 34.13.

5.000 CLAIMS, DISPUTES AND APPEALS (JUN 2001)

(a) **General**. Parties shall communicate with one another in good faith and in a timely and cooperative manner when raising issues under this article. The Department of Defense's policy is to try to resolve all issues concerning agreements by mutual agreement at the Agreements Officer's level.

(b) **Alternative Dispute Resolution (ADR)**: A mutually agreeable form of ADR may be utilized at any time to facilitate resolution of issues submitted under this article. ADR procedures are any voluntary means used to resolve issues in controversy without resorting to formal administrative appeals or litigation. ADR procedures may be initiated in lieu of submission of a written claim to the Agreements Officer or an appeal to the Grant Appeal Authority (GAA), or at any appropriate time during a dispute.

(c) Claims Resolution Process.

(1) **Recipient Claims**: Whenever disputes, disagreements, or misunderstandings arise, the parties shall attempt to resolve the issue(s) involved by discussion and mutual agreement as soon as practicable. Failing resolution by mutual agreement, the recipient may submit to the Agreements Officer, in writing, the relevant facts, including all data that supports the claim, identifying unresolved issues and specifying the clarification or remedy sought. Within 60 days of receipt of the written claim or issue in dispute, the Agreements Officer shall either:

(i) Prepare a written decision on the issue, including the basis for the decision, or

(ii) Notify the recipient of a specific date when he or she will render a written decision, if more time is required to do so. The notice will include the reason for delaying the decision.

(2) **Government Claims:** Government claims against a recipient shall be the subject of a written decision by the Agreements Officer.

(3) **Appeals**: In the event the recipient decides to appeal the decision of the Agreements Officer, they must do so within 90 days of receipt of the decision. The appeal must be submitted, in writing, to the Grant Appeal Authority (GAA). The GAA is AFMC/PK. The GAA shall conduct a review of the matter and render a decision in writing within 30 days of receipt of the written appeal. Any such decision is not subject to further administrative review and shall be final and binding.

(4) **Non-exclusivity of Remedies**. Nothing in this article is intended to limit a recipient's right to any remedy under the law.

5.001 OMBUDSMAN (APR 2008)

(a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from offerors, potential offerors, and others for this agreement. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman does not affect the authority of the program manager, Agreements Officer, or Evaluation Review Official. Further, the ombudsman does not participate in the evaluation of proposals, the evaluation process, or the adjudication of protests or formal contract disputes. The ombudsman may refer the party to another official who can resolve the concern.

(b) If resolution cannot be made by the Agreements Officer, concerned parties may contact the AFRL ombudsman:

Primary: AFRL/PK Director
Alternate Ombudsman: AFRL/PK Deputy Director

1864 Fourth St
Wright-Patterson AFB OH 45433-7130
937-904-9700
Email: Afrl.pk.workflow@us.af.mil

(c) The ombudsman has no authority to render a decision that binds the agency.

(d) Do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the Agreements Officer.

6.00 PATENT INFRINGEMENT (APR 2000)

The recipient agrees not to hold the U.S. Government responsible for any and all patent infringement cases that may arise under any research projects conducted under this agreement. In addition, the recipient shall indemnify the Government against all claims and proceedings for actual or alleged direct or contributory infringement of, or inducement to infringe, any U.S. or foreign patent, trademark, or copyright arising under this agreement and the recipient shall hold the government harmless from any resulting liabilities and losses provided the recipient is reasonably notified of such claims and proceedings.

6.01 INVENTIONS (JUN 2001)

(a) **Definitions**:

(1) "**Invention**" means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.).

(2) "**Subject invention**" means any invention of the recipient conceived or first actually reduced to practice in the performance of work under this agreement, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d)) must also occur during the period of agreement performance.

(3) "**Practical Application**" means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or government regulations, available to the public on reasonable terms.

(4) "**Made**" when used in relation to any invention means the conception or first actual reduction to practice of such invention.

(5) "**Small Business Firm**" means a small business concern as defined at section 2 of Pub. L. 85-536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this article, the size standards for small business concerns involved in Government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3- 12, respectively, will be used.

(6) "**Nonprofit Organization**" means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c) and exempt from taxation under section 501(a) of the Internal Revenue Code (25 U.S.C.501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

(b) **Allocation of Principal Rights**:

(1) The recipient may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this article and 35 U.S.C. 203. With respect to any subject invention in which the recipient retains title, the Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(c) **Invention Disclosure, Election of Title and Filing of Patent Application by Recipient**:

(1) The recipient will disclose each subject invention to the Government within 2 months after the inventor discloses it in writing to recipient personnel responsible for patent matters. The disclosure to the Government shall be in the form of a written report and shall identify the agreement under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to the Government, the recipient will promptly notify the Government of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the recipient.

(2) The recipient will elect in writing whether or not to retain title to any such invention by notifying the Government within 2 years of disclosure to the Government. However, in any case where publication, on sale or public use has initiated the one year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title may be shortened by the Government to a date that is no more than 60 days prior to the end of the statutory period.

(3) The recipient will file its initial patent application on a subject invention to which it elects to retain title within 1 year after election of title or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The recipient will file patent applications in additional countries or international patent offices within either 10 months of the corresponding initial patent application or 6 months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

(4) Requests for extension of the time for disclosure, election, and filing under subparagraphs (1), (2), and (3) may, at the discretion of the Government, be granted.

(d) **Conditions When the Government May Obtain Title**: The recipient will convey to the Government, upon written request, title to any subject invention—

(1) If the recipient fails to disclose or elect title to the subject invention within the times specified in (c), above, or elects not to retain title; provided that the Government may only request title within 60 days after learning of the failure of the recipient to disclose or elect within the specified times.

(2) In those countries in which the recipient fails to file patent applications within the times specified in (c) above; provided, however, that if the recipient has filed a patent application in a country after

the times specified in (c) above, but prior to its receipt of the written request of the Government, the recipient shall continue to retain title in that country.

(3) In any country in which the recipient decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention.

(e) **Minimum Rights to Recipient and Protection of the Recipient Right to File:**

(1) The recipient will retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the recipient fails to disclose the invention within the times specified in (c), above. The recipient's license extends to its domestic subsidiary and affiliates, if any, within the corporate structure of which the recipient is a party and includes the right to grant sublicenses of the same scope to the extent the recipient was legally obligated to do so at the time the agreement was awarded. The license is transferable only with the approval of the Government except when transferred to the successor of that party of the recipient's business to which the invention pertains.

(2) The recipient's domestic license may be revoked or modified by the Government to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR part 404 and Government licensing regulations (if any). This license will not be revoked in that field of use or the geographical areas in which the recipient has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of the Government to the extent the recipient, its licensees, or the domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

(3) Before revocation or modification of the license, the Government will furnish the recipient a written notice of its intention to revoke or modify the license, and the recipient will be allowed 30 days (or such other time as may be authorized by the Government for good cause shown by the recipient) after the notice to show cause why the license should not be revoked or modified. The recipient has the right to appeal, in accordance with applicable regulations in 37 CFR part 404 and Government regulations (if any) concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of the license.

(f) **Recipient Action to Protect the Government's Interest**:

(1) The recipient agrees to execute or to have executed and promptly deliver to the Government all instruments necessary to (i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the recipient elects to retain title, and (ii) convey title to the Government when requested under paragraph (d) above and to enable the Government to obtain patent protection throughout the world in that subject invention.

(2) The recipient agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the recipient each subject invention made under an agreement in order that the recipient can comply with the disclosure provisions of paragraph (c), above, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by (c)(1), above. The recipient shall instruct such employees through employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) The recipient will notify the Government of any decisions not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a

patent, in any country, not less than 30 days before the expiration of the response period required by the relevant patent office.

(4) The recipient agrees to include, within the specification of any United States patent applications and any patent issuing thereon covering a subject invention, the following statement, "This invention was made with Government support under (identify the agreement) awarded by (identify the Federal Agency). The Government has certain rights in the invention."

(g) **Lower Tier Agreements:** The recipient will include this article, suitably modified to identify the parties, in all lower tier agreements, regardless of tier, for experimental, developmental or research work. Each subrecipient will retain all rights provided for the recipient in this article, and the recipient will not, as part of the consideration for awarding a subrecipient award, obtain rights in a subrecipients' subject inventions.

(h) **Reporting on Utilization of Subject Inventions**: The recipient agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the recipient or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the recipient, and such other data and information as the Government may reasonably specify. The recipient also agrees to provide additional reports as may be requested by the Government in connection with any march-in proceeding undertaken by the Government in accordance with paragraph (j) of this article. As required by 35 U.S.C. 202(c)(5), the Government agrees it will not disclose such information to persons outside the Government without permission of the recipient.

(i) **Preference for United States Industry**: Notwithstanding any other provision of this article, the recipient agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject inventions in the United States unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by the Government upon a showing by the recipient or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(j) **March-in Rights**: The recipient agrees that with respect to any subject invention in which it has acquired title, the Government has the right in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of the Government to require the recipient, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the recipient, assignee, or exclusive licensee refuses such a request the Government has the right to grant such a license itself if the Government determines that:

(1) Such action is necessary because the recipient or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use.

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the recipient, assignee or their licensees;

(3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the recipient, assignee or licensees; or

(4) Such action is necessary because the agreement required by paragraph (i) of this article has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

(5) Special Provisions for Agreements with Nonprofit Organizations

(k) If the recipient is a nonprofit organization, it agrees that:

(1) Rights to a subject invention in the United States may not be assigned without the approval of the Government, except where such assignment is made to an organization which has as one of its primary functions the management of inventions, provided that such assignee will be subject to the same provisions as the recipient;

(2) The recipient will share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (when the Government deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;

(3) The balance of any royalties or income earned by the recipient with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions, will be utilized for the support of scientific research or education; an

(4) It will make efforts that are reasonable under the circumstances to attract licensees of subject invention that are small business firms and that it will give a preference to a small business firm when licensing a subject invention if the recipient determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided, that the recipient is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the recipient. However, the recipient agrees that the Secretary may review the recipient's licensing program and decisions regarding small business applicants, and the recipient will negotiate changes to its licensing policies, procedures, or practices with the Secretary when the Secretary's review discloses that the recipient could take reasonable steps to implement more effectively the requirements of this paragraph (k)(4).

(l) **Communication**: The point of contact on matters relating to this article will be the servicing Staff Judge Advocate's office identified in the article entitled Administrative Responsibilities.

6.02 DATA RIGHTS (AUG 2001)

(a) **Definitions**:

"**Government Purposes**", as used in this article, means any activity in which the United States Government is a party, including cooperative agreements with international or multinational defense organizations, or sales or transfers by the United States Government to foreign governments or international organizations. Government purposes include competitive procurement, but do not include the rights to use, modify, reproduce, release, perform, display, or disclose data for commercial purposes or authorize others to do so.

"**Government Purpose Rights**", as used in this article, means the right to –

(1) Use, modify, reproduce, release, perform, display, or disclose technical data within the Government without restriction; and

(2) Release or disclose technical data outside the Government and authorize persons to whom release or disclosure has been made to use, modify, reproduce, release, perform, display, or disclose that data for United States government purposes.

"**Limited rights**", means the rights to use, modify, reproduce, release, perform, display, or disclose technical data, in whole or in part, within the Government. The Government may not, without the written permission of the party asserting limited rights, release or disclose the technical data outside the Government, use the technical data for manufacture; or authorize the technical data to be used by another party, except that the Government may reproduce, release, or disclose such data or authorize the use of reproduction of the data by persons outside the Government if –

(1) The reproduction, release, disclosure, or use is -
   (A) Necessary for emergency repair and overhaul; or
   (B) A release or disclosure to –

i. A covered government support contractor, for use, modification, reproduction, performance, display, or release or disclosure to authorized person(s) in performance of a Government contract.

or

ii. A foreign government, of technical data, other than detailed manufacturing or process data, when use of such data by the foreign government is in the interest of the government and is required for evaluation or information purposes;

(2) The Recipient of the technical data is subject to a prohibition on the further reduction, release, disclosure, or use of the technical data; and

(3) The contractor or subcontractor asserting the resection is notified of such reproduction, release, disclosure, or use.

"**Unlimited Rights**", as used in this article, means rights to use, modify, reproduce, perform, display, release, or disclose data in whole or in part, in any manner, and for any purpose whatsoever, and to have or authorize others to do so.

"Data", as used in this article, means recorded information, regardless of form or method or recording, which includes but is not limited to, technical data, software, trade secrets, and mask works. The term does not include financial, administrative, cost, pricing or management information and does not include subject inventions included under the article entitled Inventions.

"Practical Application", as used in this article, means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or government regulations, available to the public on reasonable terms.

(b) **Allocation of Principal Rights**:

(1) Ownership rights to data generated under this agreement shall vest in the recipient. This agreement shall be performed with mixed Government and recipient funding and the parties agree that in consideration for Government funding, the recipient intends to reduce to practical application items, components and processes developed under this agreement.

(2) The recipient agrees to retain and maintain in good condition until 3 years after completion or termination of this agreement, all data necessary to achieve practical application. In the event of exercise of the Government's march-in rights as set forth under the Article entitled Inventions, the recipient agrees, upon written request from the Government, to deliver at no additional cost to the Government, all data necessary to achieve practical application within 60 days from the date of the written request. The Government shall have unlimited rights to this delivered data.

(3) With respect to data generated under this agreement, including data delivered pursuant to Part 7 of this agreement, "Technical and Financial Reporting," the Government shall receive Government Purpose rights." In the event Perpetua asserts "Limited Rights" on any data, the Government may need to add a "Limited Rights" marking under paragraph (c) of this article.

(c) **Marking of Data**:

(1) Pursuant to subparagraph (b)(3) above, any data delivered under this agreement shall be marked with the following legend:

Government Purpose Rights

Agreement No.:
Recipient's Name:
Recipient's Address:

The Government may use, modify, reproduce, release, perform, display or disclose these data within the Government without restriction, and may release or disclose outside the Government and authorize persons to whom such release or disclosure has been made to use, modify, reproduce, release, perform, display or disclose that data for United States Government purposes, including competitive procurement.

(2) Any trade secrets and commercial or financial information the recipient wishes to protect from release under Freedom of Information Act (FOIA) requirements must be marked with a legend identifying it as privileged or confidential information.

(d) **Lower Tier Agreements**: The recipient shall include this article, suitably modified to identify the parties, in all subcontracts or lower tier agreements, regardless of tier, for experimental, developmental, or research work.

6.003 INVENTIONS / PATENTS (NOV 2011) (TAILORED)

(a) The clause entitled Patent Rights (Small Business Firms and Nonprofit Organizations, (37 CFR 401.14(a)) is hereby incorporated by reference and is modified as follows: replace the word "contractor" with "recipient"; replace the words "agency," "Federal Agency" and "funding Federal Agency" with "Government"; replace the word "contract" with "agreement"; delete paragraphs (g)(2), (g)(3) and the words "to be performed by a small business firm or domestic nonprofit organization" from paragraph (g)(1). Paragraph (l), Communications, point of contact on matters relating to this clause will be the servicing Staff Judge Advocate's office.

(b) Interim or final Invention Reports 1) listing subject invention(s) and stating that all subject inventions have been disclosed, or 2) stating that there are no such inventions, shall be sent to both the Administrative Agreements Officer at the address located in the agreement and to the Agreements Officer / patent administrator at afmclo.jaz@us.af.mil, with a courtesy copy (cc:) to the government Program Manager/Project Engineer. Please include in the subject line of the e-mail the contract number followed by the words "Invention Reporting." Also include in the body of the e-mail the names of the Government Project Engineer/Program Manager and his/her office symbol. The recipient shall file Invention (Patent) Reports on the DD Form 882, Report of Inventions and Subcontracts, as of the close of each performance year and at the end of the term for this agreement. Annual reports are due 90 days after the end of each year of performance and final reports are due 90 days after the expiration of the final performance period. Negative reports are also required annually.

(c) The DD Form 882 may also be used for the notification of any subaward(s) for experimental, developmental or research work which contain a "Patent Rights" clause, with a cc: to the Government Program Manager/Project Engineer.

(d) All other notifications (e.g., disclosure of each subject invention to the Agreements Officer within 2 months after the inventor discloses it) shall also be sent to the e-mail address above, with a cc: to the Government Program Manager/Project Engineer.

(e) This provision also constitutes the request for the following information for any subject invention for which the recipient has retained ownership: 1) the filing date, 2) serial number and title, 3) a copy of the patent application and 4) patent number and issue date. Submittal shall be to the Agreements Officer /

patent administrator e-mail address listed above, with a cc: to the government Program Manager/Project Engineer.

6.004 FOREIGN ACCESS TO TECHNOLOGY (APR 2000)

(a) **Definitions**:

"**Foreign Firm or Institution**" means a firm or institution organized or existing under the laws of a country other than the United States, its territories, or possessions. The term includes, for purposes of this agreement, any agency or instrumentality of a foreign government, and firms, institutions or business organizations which are owned or substantially controlled by foreign governments, firms, institutions, or individuals.

"**Know-how**" means all information including, but not limited to, discoveries, formulas, materials, inventions, processes, ideas, approaches, concepts, techniques, methods, software, programs, documentation, procedures, firmware, hardware, technical data, specifications, devices, apparatus and machines.

"**Technology**" means discoveries, innovations, know-how and inventions, whether patentable or not, including computer software, recognized under U.S. law as intellectual creations to which rights of ownership accrue, including, but not limited to, patents, trade secrets, mask works, and copyrights developed under this agreement.

(b) **General:** The parties agree that research findings and technology developments in the production of antimony trisulfide may constitute a significant enhancement to the national defense, and to the economic vitality of the United States. Accordingly, access to important technology developments under this agreement by foreign firms or institutions must be carefully controlled. The controls contemplated in this article are in addition to, and are not intended to change or supersede, the provisions of the International Traffic in Arms Regulation (22 CFR pt. 120 et seq.), the DOD Industrial Security Regulation (DOD 5220.22-R) and the Department of Commerce Export Regulation (15 CFR pt. 770 et seq.).

(c) **Restrictions on Sale or Transfer of Technology to Foreign Firms or Institutions**.

(1) In order to promote the national security interests of the United States and to effectuate the policies that underlie the regulations cited above, the procedures stated in subparagraphs C.2, C.3, and C.4 below shall apply to any transfer of technology. For purposes of this paragraph, a transfer includes a sale of the company, and sales or licensing of technology. Transfers do not include:

(i) Sales of products or components, or

(ii) Licenses of software or documentation related to sales of products or components, or

(iii) Transfer to foreign subsidiaries of the recipient (recipient participants) for purposes related to this agreement, or

(iv) Transfer which provides access to technology to a foreign firm or institution which is an approved source of supply or source for the conduct of research under this agreement provided that such transfer shall be limited to that necessary to allow the firm or institution to perform its approved role under this agreement.

(2) The recipient shall provide timely notice to the Government of any proposed transfer from the recipient of technology developed under this agreement to foreign firms or institutions. If the Government determines that the transfer may have adverse consequences to the national security interests of the United States, the recipient, its vendors, and the Government shall jointly endeavor to find alternatives to the proposed transfer which obviate or mitigate potential adverse consequences of the transfer but which provide substantially equivalent benefits to the recipient.

(3) In any event, the recipient shall provide written notice to the Agreements Officer and Government program manager of any proposed transfer to a foreign firm or institution at least 60 days prior to the proposed date of transfer. Such notice shall cite this article and shall state specifically what is to be transferred and the general terms of the transfer. Within 30 days of receipt of the recipient's written notification, the Agreements Officer shall advise the recipient whether it consents to the proposed transfer. In cases where the Government does not concur or 60 days after receipt and the Government provides no decision, the recipient may utilize the procedures under the article entitled Claims, Disputes and Appeals. No transfer shall take place until a decision is rendered.

(4) Except as provided in subparagraph C.1 above and in the event the transfer of technology to foreign firms or institutions is not approved by the Government, but the transfer is made nonetheless, the recipient shall (a) refund to the Government the funds paid for the development of the technology and (b) negotiate a license with the Government to the technology under terms that are reasonable under the circumstances.

(d) **Lower Tier Agreements:** The recipient shall include this article, suitably modified to identify the parties, in all subcontracts or lower tier agreements, regardless of tier, for experimental, development, or research work.

(e) This article shall remain in effect during the term of the agreement and for 5 years thereafter.

6.005 EXPORT-CONTROLLED DATA RESTRICTIONS (AUG 2013)

(a) For the purpose of this article,

(1) Foreign person is any person who is not a citizen or national of the U.S. or lawfully admitted to the U.S. for permanent residence under the Immigration and Nationality Act, and includes foreign corporations, international organizations, and foreign governments;

(2) Foreign representative is anyone, regardless of nationality or citizenship, acting as an agent, representative, official, or employee of a foreign government, a foreign-owned or influence firm, corporation or person;

(3) Foreign sources are those sources (vendors, subcontractors, and suppliers) owned and controlled by a foreign person.

(b) The Recipient shall place an article/clause in subawards/subcontracts containing appropriate export control restrictions, set forth in this article.

(c) Nothing in this article waives any requirement imposed by any other U.S. Government agency with respect to employment of foreign nationals or export-controlled data and information.

(d) All information generated and delivered under this agreement shall be reviewed to determine whether it is subject to additional requirements under the International Traffic in Arms Regulation (ITAR), 22 CFR Sections 121 through 128. If any information is determined to be subject to additional requirements, it shall be protected accordingly. An export license may be required before assigning any foreign source to perform work under this agreement or before granting access to foreign persons to any information generated or delivered during performance (see 22 CFR Section 125).

7.00 FINAL REPORT (JUN 2001) (TAILORED)

(a) The Final Report shall be submitted within 90 days of the end of the technical effort. Two (2) copies of the report shall be provided to the following person(s) listed in the article entitled Administrative Responsibilities: Government Program Manager. The technical portion of the report should be suitable for publication and is to provide a recap of the program and program accomplishments. With the approval of the Government Program Manager, reprints of published articles may be submitted or attached to the technical portion of the Final Report. The business portion of the report shall contain separate discussion of total cost incurred, total costs contributed by each Recipient member with an explanation for any deviation from the original business plan.

(b) The report shall be tailored to include the official "Title III/OSD" emblem to be placed in the upper right hand corner of the front cover with affected entries adjusted as required (AFRL will supply a copy of the emblem). Draft report shall be unbound, in standard size type, double-spaced and single sided. Reproducible shall be:

1) Camera ready, unbound, suitable for offset reproduction, and

2) On CD-ROM or ZIP drive disk compatible with MS-Office for Windows, and both shall incorporate all changes made in the corrected draft.

3) All photos shall be glossy finished. Submit the reproducible(s) with the final corrected version only.

(c) The Recipient is reminded that the National Industrial Security Program Operating Manual, DOD 5220.22-M, Chapter 4, Paragraph 4-208(a), dated January 1995 requires that records be maintained when documents derive classified from multiple sources.

(d) The Recipient shall receive approval/disapproval by letter from the Air Force Program Manager within 30 days after receipt of Air Force comments. Disapproval requires correction/resubmission within 30 days after receipt of Air Force comments.

(e) The Final Report submission to the Government is exempt from disclosure requirements of 5 U.S.C. 552 (Freedom of Information Act - Exemption 4 thereunder) for a period of 5 years from the date identifying the documents as being submitted on a confidential basis.

(f) **Distribution Statement**. In addition to any other required legend, mark all data delivered under this agreement with the distribution statement located in Article 7.007.

7.01 REPORTING SUBAWARDS AND EXECUTIVE COMPENSATION (OCT 2010) (TAILORED)

(a) **Reporting of First-Tier Subawards**:

(1) **Applicability**. Unless you are exempt as provided in paragraph d. of this award term, you must report each action that obligates $25,000 or more in Federal funds that does not include Recovery funds (as defined in section 1512(a)(2) of the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5) for a subaward to an entity (see definitions in paragraph e. of this award term).

(2) **Where and When to Report**:

(i) You must report each obligating action described in paragraph (a)(1) of this award term to http://www.fsrs.gov.

(ii) For subaward information, report no later than the end of the month following the month in which the obligation was made. (For example, if the obligation was made on November 7, 2010, the obligation must be reported by no later than December 31, 2010.)

(3) **What to Report**. You must report the information about each obligating action that the submission instructions posted at http://www.fsrs.gov specify.

(b) **Reporting Total Compensation of Recipient Executives**:

(1) **Applicability and What to Report**. You must report total compensation for each of your 5 most highly compensated executives for the preceding completed fiscal year, if

(i) The total Federal funding authorized to date under this award is $25,000 or more;

(ii) In the preceding fiscal year, you received-

(A) 80 percent or more of your annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

(B) $25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

(iii) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at https://www.sec.gov/answers/execomp.htm.)

(2) **Where and When to Report**: You must report executive total compensation described in paragraph (b)(1) of this award term:

(i) As part of your registration profile at https://SAM.gov

(ii) By the end of the month following the month in which this award is made, and annually thereafter.

(c) **Reporting of Total Compensation of Subrecipient Executives**:

(1) Applicability and what to report. Unless you are exempt as provided in paragraph d. of this award term, for each first-tier subrecipient under this award, you shall report the names and total compensation of each of the subrecipients' five most highly compensated executives for the subrecipients preceding completed fiscal year, if-

(i) In the subrecipients preceding fiscal year, the subrecipient received-

(A) 80 percent or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

(B) $25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts), and Federal financial assistance subject to the Transparency Act (and subawards); and

(ii) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at https://www.sec.gov/answers/execomp.htm.)

(2) **Where and When to Report**. You must report subrecipient executive total compensation described in paragraph (c)(1) of this award term:

(i) **To the Recipient**:

(ii) By the end of the month following the month during which you make the subaward. For example, if a subaward is obligated on any date during the month of October of a given year (i.e., between

October 1 and 31), you must report any required compensation information of the subrecipient by November 30 of that year.

(d) **Exemptions**: If, in the previous tax year, you had gross income, from all sources, under $300,000, you are exempt from the requirements to report:

(1) Subawards, and

(2) The total compensation of the five most highly compensated executives of any subrecipient.

(e) **Definitions**. For purposes of this award term:

(1) **"Entity"** means all of the following, as defined in 2 CFR part 25:

(i) A Governmental organization, which is a State, local government, or Indian tribe;

(ii) A foreign public entity;

(iii) A domestic or foreign nonprofit organization;

(iv) A domestic or foreign for-profit organization;

(v) A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.

(2) **"Executive"** means officers, managing partners, or any other employees in management positions.

(3) **"Subaward"**:

(i) This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.

(ii) The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see 2 CFR part 200, subpart F, "Audit Requirements").

(iii) A subaward may be provided through any legal agreement, including an agreement that you or a subrecipient considers a contract.

(4) **"Subrecipient**" means an entity that:

(i) Receives a subaward from you (the recipient) under this award; and

(ii) Is accountable to you for the use of the Federal funds provided by the subaward.

(5) Total compensation means the cash and noncash dollar value earned by the executive during the recipient's or subrecipients preceding fiscal year and includes the following (for more information see 17 CFR 229.402(c)(2)):

(i) Salary and bonus.

(ii) Awards of stock, stock options, and stock appreciation rights. Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Statement of Financial Accounting Standards No. 123 (Revised 2004) (FAS 123R), Shared Based Payments.

(iii) Earnings for services under non-equity incentive plans. This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.

(iv) Change in pension value. This is the change in present value of defined benefit and actuarial pension plans.

(v) Above-market earnings on deferred compensation which is not tax-qualified.

(vi) Other compensation, if the aggregate value of all such other compensation (e.g. severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the executive exceeds $10,000.

7.02 FUNDS AND MANHOUR EXPENDITURE REPORT (SEP 2005)

(a) The Funds and Man-hour Expenditure Report shall be submitted on a quarterly basis. First submission shall commence at the close of the Recipient's monthly accounting period. One copy of the Report shall be provided to the following persons listed in the Article entitled "Administrative Responsibilities": Government Program Manager, Agreements Officer, Financial Management, and Administration Office. Report may be submitted via e-mail. This report shall contain the following:

(1) A tabular listing of funding and man-hour expenditures inclusive of the reporting period compared to original baseline values, including to-completion estimates;

(2) A graphical plot of planned versus actual funding expenditures to include Government and Cost Share Funding, and

(3) A graphical plot of planned and actual percentage of work completed.

(b) Each task, job-order, sub-task, or unit of work will be separately addressed. If schedule or milestone reporting is also a reporting requirement under the Agreement, the breakdown of work task elements should be consistent with that reporting. Attachment 5 entitled Funds and Man-hour Report is provided for use in meeting this requirement.

(c) The report identified in paragraph (a) above, shall contain the following data elements:

(1) **Original Negotiated Agreement** - A summary of all cost elements associated with the original negotiated Agreement. This is defined as the Recipient's original cost proposal, as negotiated and accepted by the Government. It is that cost as it appears on the original award document. Its elements shall contain that cost estimate breakdown by category (i.e., direct labor, burden/overhead, material/parts, travel, subsistence, fringe, General and Administrative, fee, outstanding commitments, etc.) as provided in the accepted proposal. Items and amounts specified in this entry shall remain constant on successive reports during the term of the award.

(2) **Latest Negotiated Agreement Changes** - A summary of the latest negotiated Agreement changes. It shall be a recapitulation of the Original Negotiated Agreement data elements provided above reflecting all subsequent changes resulting from agreement modifications. Breakdown by category shall "none" if revised proposals have no effect.

(3) **Reporting Period Expenditures** - Expenditure data for the current reporting period for the work task categories used in Original Negotiated Agreement and Latest Negotiated Agreement

Changes (as applicable), and covering man hours, funds, and the change (new orders minus fulfilled orders) in outstanding commitments.

(4) **Cumulative Expenditure to Date -** Cumulative man hour, funds, and outstanding commitments expenditure data through the current reporting period for the work task categories used in Original Negotiated Agreement and Latest Negotiated Agreement Changes (as applicable). Additionally, how cumulative costs as a percentage of those costs.

(5) **Estimated Cost-to-Complete -** The estimated costs required to complete the work task from the reporting date to the date of completion. This estimate shall be defined by categories as they appear in the Original Negotiated Agreement and Latest Negotiated Agreement Changes. All estimates shall be justified.

(6) **Latest Cost Estimate -** An estimate of the final cost at completion of the work effort. This is derived from Cumulative Expenditure to Date and Estimated Cost-to-Complete. Deviations between the original award and/or latest negotiated award change shall be justified/explained in footnote remarks.

(d) The Funds Expenditure Graph identified above, shall contain the following:

The graph shall be reproducible to enable periodic changes reflecting current award funding status to be entered. The graph shall portray, on a periodic basis, the planned versus actual total dollar expenditures and the percentage of the total award dollars that the expenditure represents.

(e) The Work Completed Graph identified in paragraph (c) above, shall contain the following:

(1) A Work Completed Graph shall reflect the percentage of work completed by the awardee through the current reporting period. The graph shall plot actual completion versus planned completion, and shall be maintained current and be fully legible and reproducible.

Distribution Statement. In addition to any other required legend, mark all data delivered under this Agreement with the distribution statement located in Article 7.007 below.

7.03 RECIPIENT'S PROGRESS, STATUS AND MANAGEMENT REPORT (SEPT 2005)

The Recipient's Progress, Status, and Management Report shall be submitted on a quarterly basis. First submission shall commence at the close of the Recipient's monthly accounting period. The report can be tailored to allow Recipient's format. One copy each shall be provided to the following persons as listed in the article entitled, Administrative Responsibilities: Government Program Manager. Report may be submitted via e-mail.

This report shall contain the following:

(a) A front cover sheet, which includes the Recipient's name and address, the agreement number, the name of the program, the date of the report, the period covered by the report, the title of the report, the security classification and the name of the issuing Government activity.

(b) Description of the progress made against milestones during the reporting period.

(c) Results, positive or negative, obtained related to previously identified program areas, with conclusions and recommendations.

(d) Any significant changes to the Recipient's organization or method of operation, to the project management network, or to the milestone chart.

(e) Problem areas affecting technical or scheduling elements, with background and any recommendations for solutions beyond the scope of the agreement.

(f) Problem areas affecting cost elements, with background and any recommendations for solutions beyond the scope of the agreement.

(g) Any trips and significant results.

(h) Agreement schedule status.

(i) Plans for activities during the following reporting period.

(j) Name and telephone number of preparer of the report.

(k) Appendices for any necessary tables, references, photographs, illustrations, and charts.

(l) A Gantt chart in Microsoft Project or other available software to include:

(i) Tasks and subtasks

(ii) Milestones

(iii) Equipment milestones on material delivery, payment schedule, and installation dates

(iv) Percent of work complete for each task and subtask.

(m) Distribution Statement. In addition to any other required legend, mark all data delivered under this agreement with the distribution statement located in Article 7.007.

7.04 STRATEGIC BUSINESS PLAN (SEP 2005)

(a) The Strategic Business Plan shall be submitted no later than 9 months after agreement award. Attachment 4 may be used as an outline for the topic areas to be addressed in the report. The report can be tailored to allow the Recipient's format. One copy of the report shall be provided to the following persons listed in the article entitled Administrative Responsibilities: Government Program Manager.

(b) Report may be submitted via e-mail. The Recipient shall receive approval or disapproval by letter from the Air Force Program Manager within 30 days after receipt. Disapproval requires correction/resubmission within 30 days after receipt of Air Force comments. Submit reproducible on media compatible with MS-Office for Windows.

(c) Strategic Business Plan submissions to the Government are exempt from disclosure requirements of 5 U.S.C. 552 (Freedom of Information Act - Exemption 4 thereunder) for a period of five years from the date the Department receives the information. The Recipient shall mark such information with a legend identifying the documents as being submitted on a confidential basis.

(d) Distribution Statement: In addition to any other required legend, mark all data delivered under this agreement with the distribution statement located in Article 7.007.

7.05 PROPERTY CONTROL LIST (JAN 2009)

Attachment 7, Property Control List, shall be utilized for the tracking of property under this agreement and shall be submitted quarterly to the Government Program Manager identified in Article 1.002 Administrative Responsibilities. Report may be submitted via e-mail. This list shall track:

1) Federally owned equipment,

2) Equipment acquired in whole or in part with Federal funds, and

3) Equipment provided by the recipient as their non-federal share (cost share) contribution.

Distribution Statement. In addition to any other required legend, mark all data delivered under this agreement with the distribution statement located in Article 7.007.

7.06 PRESENTATION MATERIAL (APR 2005)

Presentation Material shall be submitted after each briefing or review as appropriate. The maximum quantity of view graphs shall not exceed 250 per presentation. If requested, the Government may remove any Recipient insignia, trade names or symbols from presentation material. One electronic copy (via email or CD) shall be provided to the following persons as listed in the article entitled Administrative Responsibilities: Government Program Manager. Submit reproducible in a PowerPoint file on media compatible with MS- Office for Windows.

If requested, some presentation material shall include text information in sufficient detail to explain key points pertaining to the individual chart(s). The text shall include the following statement: "The publication of this material does not constitute approval by the Government of the findings or conclusion herein. Wide distribution or announcement of this material shall not be made without specific approval by the sponsoring Government activity."

Distribution Statement: In addition to any other required legend, mark all data delivered under this agreement with this distribution statement located in Article 7.007.

7.07 DISTRIBUTION STATEMENT (AUG 2007)

DISTRIBUTION STATEMENT B. Distribution authorized to US Government agencies and approved DoD contractors functioning as technical advisors to the Government Title III program team. Other requests shall be referred to:

AFRL/RXM
2977 Hobson Way, Building 653
Wright-Patterson AFB, OH 45433-7739

All non-government personnel having access to data obtained/created/developed under this agreement will be required to sign non-disclosure agreement.

This statement may be used on unclassified and classified technical documents.

7.08 MARKETING PLAN (JUN 2006)

(a) The Marketing Plan shall be submitted no later than 6 months after Agreement award. The report can be tailored to allow for Recipient's desired format. Attachment 6 is provided to guide the Recipient in the level of detailed required. One copy each shall be provided to the following persons as listed in the article entitled "Administrative Responsibilities: Government Program Manager".

(b) The report may be submitted via e-mail. The Recipient shall receive approval or disapproval by letter from the Air Force Program Manager within 30 days after receipt. Disapproval requires correction/resubmission within 30 days after receipt of Air Force comments. Submit reproducible on media compatible with MS-Office for Windows.

(c) Marketing Plan submissions to the Government are exempt from disclosure requirements of 5 U.S.C 552 (Freedom of Information Act - Exemption 4 thereunder) for a period of five years from the date the Department receives the information. The Recipient shall mark such information with a legend identifying the documents as being submitted on a confidential basis.

(d) Distribution Statement: In addition to any other legend, mark all data delivered under this agreement with the distribution statement located in Article 7.007.

7.09 DISCLOSURE OF INFORMATION (MAY 2005)

(a) The Recipient shall not release to anyone outside the Recipient's organization any unclassified information, regardless of medium (e.g. film, tape, document, media announcements, etc.) pertaining to any part of this agreement or any program related to this agreement unless –

(1) The Agreements Officer has given prior written approval; or

(2) The information is otherwise in the public domain before the date of release.

(b) Requests for approval shall identify the specific information to be released, the medium to be used, and the purpose for the release. The Recipient shall submit its request to the Agreements Officer at least 65 days before the proposed date for release.

(c) The Recipient agrees to include a similar requirement in each sub-agreement under this agreement. Sub-recipients shall submit requests for authorization to release through the prime Recipient to the Agreements Officer.

8.000 ADMINISTRATIVE REQUIREMENTS FOR SUBAWARDS AND CONTRACTS (APR 2000) (TAILORED)

(a) The recipients shall apply to each subaward the administrative requirements of 2 CFR 200 applicable to awards to universities or other nonprofit organizations and awards to state and local governments, and DoDGARs Part 34 shall be applied to for-profit entities.

(b) Recipients awarding contracts under this agreement shall assure that contracts awarded contain, as a minimum, the provisions in Appendix A to DoDGARs Part 34.

8.01 PROCUREMENT STANDARDS (AUG 2001)

The recipient will:

(a) Follow basic principles of business intended to produce rational decisions and fair treatment in all contracts entered into under this agreement.

(b) Comply with federal statutes, executive orders, regulations, and other legal requirements applicable to contracts entered into under this agreement.

(c) The recipient shall comply with DoDGARS 37.705 and 32 CFR 34.31 Purchasing Standards under this TIA.

8.02 CLOSEOUT (AUG 2001)

(a) The cognizant Administrative Agreements Officer shall, at least 60 days prior to the expiration date of the award, contact the recipient to establish:

(1) All steps needed to close out the award, including submission of financial and performance reports, liquidation of obligations, and decisions on property disposition.

(2) A schedule for completing those steps.

(b) The following provisions shall apply to the closeout:

(1) The responsible Agreements Officer and payment office shall expedite completion of steps needed to close out awards and make prompt, final payments to a recipient for allowable reimbursable costs under the award being closed out.

(2) The recipient shall promptly refund any unobligated balances of cash that the DoD Component has advanced or paid and that is not authorized to be retained by the recipient for use in other projects. For unreturned amounts that become delinquent debts see DoDGARs 22.820.

(3) The Agreements Officer may make a settlement for any downward adjustments to the Federal share of costs after closeout reports are received.

(4) The recipient shall account for any real property and personal property acquired with Federal funds or received from the Federal Government in accordance with the terms of the agreement.

(5) If a final audit is required and has not been performed prior to the closeout of an award, the DoD Component shall retain the right to recover an appropriate amount after fully considering the recommendations on disallowed costs resulting from the final audit.

(c) The closeout of an award does not affect any of the following:

(1) The right of the Department of Defense to disallow costs and recover funds on the basis of a later audit or other review.

(2) The obligation of the recipient to return any funds due as a result of later refunds, corrections, or other transactions.

(3) Any specified audit requirements.

(4) Any specified property management requirements.

(5) Records retention as required by the agreement.

(d) After closeout of an award, a relationship created under an award may be modified or ended in whole or in part with the consent of the Agreements Officer and the recipient, provided the responsibilities of the recipient referred to in the agreement, including those for property management as applicable, are considered and provisions made for continuing responsibilities of the recipient, as appropriate.

8.03 SYSTEM FOR AWARD MANAGEMENT AND UNIVERSAL ENTITY IDENTIFIER REQUIREMENTS (APR 2022)

(a) Requirement for System for Award Management (SAM): Unless you are exempted from this requirement under 2 CFR 25.110, you as the recipient must maintain the currency of your information in the SAM until you submit the final financial report required under this award or receive the final payment, whichever is later. This requires that you review and update the information at least annually after the initial registration, and more frequently if required by changes in your information or another award term.

(b) Requirement for Unique Entity Identifier (UEI): If you are authorized to make subawards under this award, you:

(1) Must notify potential subrecipients that no entity (see definition in paragraph C of this award term) may receive a subaward from you unless the entity has provided its UEI to you.

(2) May not make a subaward to an entity unless the entity has provided its UEI to you.

(c) **Definitions**: For purposes of this award term:

(1) **System for Award Management (SAM)** means the Federal repository into which an entity must provide information required for the conduct of business as a recipient. Additional information about registration procedures may be found at the SAM Internet site (currently at https://SAM.gov).

(2) **Unique Entity Identifier (UEI)** number means the unique identifier established and assigned by the General Services Administration (GSA) within the SAM.gov website.

(3) Entity, as it is used in this award term, means all of the following, as defined at 2 CFR part 25, subpart C:

(i) A Governmental organization, which is a State, local government, or Indian Tribe;

(ii) A foreign public entity;

(iii) A domestic or foreign nonprofit organization;

(iv) A domestic or foreign for-profit organization; and

(v) A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.

(4) **Subaward**:

(i) This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.

(ii) The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see 2 CFR part 200, subpart F).

(iii) A subaward may be provided through any legal agreement, including an agreement that you consider a contract.

(5) Subrecipient means an entity that:

(i) Receives a subaward from you under this award; and

(ii) Is accountable to you for the use of the Federal funds provided by the subaward.

9.000 ASSURANCES (FEB 2001)

(a) By signing or accepting funds under the agreement, the recipient assures that it will comply with applicable provisions of the following National policies on:

(1) Prohibiting discrimination:

(i) On the basis of race, color, or national origin, in Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d, et seq.), as implemented by DoD regulations at 32 CFR part 195;

(ii) On the basis of age, in the Age Discrimination Act of 1975 (42 U.S.C. 6101, et seq.) as implemented by Department of Health and Human Services regulations at 45 CFR part 90;

(iii) On the basis of handicap, in Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), as implemented by Department of Justice regulations at 28 CFR part 41 and DoD regulations at 32 CFR part 56;

(2) The Clean Air Act (42 U.S.C. 7401, et seq.) and Clean Water Act (33 U.S. 1251, et seq.), as implemented by Executive Order 11738 (3 CFR, 1971-1975 Comp., p. 799).

(b) The recipient shall obtain assurances of compliance from contractors and recipients at lower tiers.

9.001 U.S. FLAG AIR CARRIERS (NOV 1999)

Travel supported by U.S. Government funds under this agreement shall use US-flag air carriers (air carriers holding certificates under 49 U.S.C. 41102) for international air transportation of people and property to the extent that such service is available, in accordance with the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. 40118) and the interpretative guidelines issued by the Comptroller General of the United States in the March 31, 1981, amendment to Comptroller General Decision B138942. (See General Services Administration amendment to the Federal Travel Regulations, Federal Register (Vol 63, No. 219, 63417-63421.))

9.002 PROHIBITION ON USING FUNDS UNDER GRANTS AND COOPERATIVE AGREEMENTS WITH ENTITIES THAT REQUIRE CERTAIN INTERNAL CONFIDENTIALITY AGREEMENTS (JUN 2015)

(a) The recipient may not require its employees, contractors, or subrecipients seeking to report fraud, waste, or abuse to sign or comply with internal confidentiality agreements or statements prohibiting investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

(b) The recipient must notify its employees, contractors, or subrecipients that the prohibitions and restrictions of any internal confidentiality agreements inconsistent with paragraph (a) of this award provisions are no longer in effect.

(c) The prohibition in paragraph a of this award provision does not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

(d) If the Government determines that the recipient is not in compliance with this award provision it:

(1) Will prohibit the recipient's use of funds under this award, in accordance with section 743 of Division E of the Consolidated and Further Continuing Resolution Appropriations Act, 2015 (Pub. L. 113- 235) or any successor provision of law; and

(2) May pursue other remedies available for the recipient's material failure to comply with award terms and conditions.

9.03 SAFEGUARDING COVERED DEFENSE INFORMATION AND CYBER INCIDENT REPORTING (DEC 2019)

(a) ***Definitions.*** As used in this article -

Adequate security means protective measures that are commensurate with the consequences and probability of loss, misuse, or unauthorized access to, or modification of information.

Compromise means disclosure of information to unauthorized persons, or a violation of the security policy of a system, in which unauthorized intentional or unintentional disclosure, modification, destruction, or loss of an object, or the copying of information to unauthorized media may have occurred.

Recipient attributional/proprietary information means information that identifies the recipients(s), whether directly or indirectly, by the grouping of information that can be traced back to the recipient(s)
(*e.g.,* program description, facility locations), personally identifiable information, as well as trade secrets, commercial or financial information, or other commercially sensitive information that is not customarily shared outside of the company.

Controlled technical information means technical information with military or space application that is subject to controls on the access, use, reproduction, modification, performance, display, release, disclosure, or dissemination. Controlled technical information would meet the criteria, if disseminated, for distribution statements B through F using the criteria set forth in DoD Instruction 5230.24, Distribution Statements on Technical Documents. The term does not include information that is lawfully publicly available without restrictions.

Covered recipient information system means an unclassified information system that is owned, or operated by or for, a recipient and that processes, stores, or transmits covered defense information.

Covered defense information means unclassified controlled technical information or other information, as described in the Controlled Unclassified Information (CUI) Registry
at *http://www.archives.gov/cui/registry/category-list.html,* that requires safeguarding or dissemination controls pursuant to and consistent with law, regulations, and Government wide policies, and is -

(1) Marked or otherwise identified in the agreement and provided to the recipient by or on behalf of DoD in support of the performance of the agreement; or

(2) Collected, developed, received, transmitted, used, or stored by or on behalf of the recipient in support of the performance of the agreement.

Cyber incident means actions taken through the use of computer networks that result in a compromise or an actual or potentially adverse effect on an information system and/or the information residing therein.

Forensic analysis means the practice of gathering, retaining, and analyzing computer-related data for investigative purposes in a manner that maintains the integrity of the data.

Information system means a discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information.

Malicious software means computer software or firmware intended to perform an unauthorized process that will have adverse impact on the confidentiality, integrity, or availability of an information system.
This definition includes a virus, worm, Trojan horse, or other code-based entity that infects a host, as well as spyware and some forms of adware.

Media means physical devices or writing surfaces including, but is not limited to, magnetic tapes, optical disks, magnetic disks, large-scale integration memory chips, and printouts onto which covered defense information is recorded, stored, or printed within a covered recipient information system.

Operationally critical support means supplies or services designated by the Government as critical for airlift, sealift, intermodal transportation services, or logistical support that is essential to the mobilization, deployment, or sustainment of the Armed Forces in a contingency operation.

Rapidly report means within 72 hours of discovery of any cyber incident.

Technical information means technical data or computer software. Examples of technical information include research and engineering data, engineering drawings, and associated lists, specifications, standards, process sheets, manuals, technical reports, technical orders, catalog-item identifications, data sets, studies and analyses and related information, and computer software executable code and source code.

(b) ***Adequate security.*** The Recipient shall provide adequate security on all covered recipient information systems. To provide adequate security, the Recipient shall implement, at a minimum, the following information security protections:

(1) For covered recipient information systems that are part of an information technology (IT) service or system operated on behalf of the Government, the following security requirements apply:

(i) Cloud computing services shall be subject to the security requirements specified in the 48 CFR §252.239-7010, Cloud Computing Services.

(ii) Any other such IT service or system (***i.e.,*** other than cloud computing) shall be subject to the security requirements specified elsewhere in this Agreement.

(2) For covered recipient information systems that are not part of an IT service or system operated on behalf of the Government and therefore are not subject to the security requirement specified at paragraph (b)(1) of this article, the following security requirements apply:

(i) Except as provided in paragraph (b)(2)(ii) of this article, the covered recipient information system shall be subject to the security requirements in National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, "Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations" (available via the internet at *http://dx.doi.org/10.6028/NIST.SP.800-171*) in effect at the time the solicitation is issued or as authorized by the Agreements officer.

(ii)

(A) The Recipient shall implement NIST SP 800-171, as soon as practical, but not later than December 31, 2017. For all agreements awarded prior to October 1, 2017, the Recipient shall notify the DoD Chief Information Officer (CIO), via email at ***osd.dibcsia@mail.mil,*** within 30 days of contract/agreement award, of any security requirements specified by NIST SP 800-171 not implemented at the time of contract or agreement award.

(B) The Recipient shall submit requests to vary from NIST SP 800-171 in writing to the Agreements officer, for consideration by the DoD CIO. The Recipient need not implement any security requirement adjudicated by an authorized representative of the DoD CIO to be nonapplicable or to have an alternative, but equally effective, security measure that may be implemented in its place.

(C) If the DoD CIO has previously adjudicated the recipient's requests indicating that a requirement is not applicable or that an alternative security measure is equally effective, a copy of that approval shall be provided to the Agreements officer when requesting its recognition under this agreement.

(D) If the Recipient intends to use an external cloud service provider to store, process, or transmit any covered defense information in performance of this agreement, the Recipient shall require and ensure that the cloud service provider meets security requirements equivalent to those established by the Government for the Federal Risk and Authorization Management Program (FedRAMP) Moderate baseline (*https://www.fedramp.gov/resources/documents/*) and that the cloud service provider complies with requirements in paragraphs (c) through (g) of this article for cyber incident reporting, malicious software, media preservation and protection, access to additional information and equipment necessary for forensic analysis, and cyber incident damage assessment.

(3) Apply other information systems security measures when the Recipient reasonably determines that information systems security measures, in addition to those identified in paragraphs (b)(1) and (2) of this article, may be required to provide adequate security in a dynamic environment or to accommodate special circumstances (*e.g.,* medical devices) and any individual, isolated, or temporary deficiencies based on an assessed risk or vulnerability. These measures may be addressed in a system security plan.

(c) ***Cyber incident reporting requirement.***

(1) When the Recipient discovers a cyber incident that affects a covered recipient information system or the covered defense information residing therein, or that affects the recipient's ability to perform the requirements of the agreement that are designated as operationally critical support and identified in the agreement, the Recipient shall -

(i) Conduct a review for evidence of compromise of covered defense information, including, but not limited to, identifying compromised computers, servers, specific data, and user accounts. This review shall also include analyzing covered recipient information system(s) that were part of the cyber incident, as well as other information systems on the Recipient's network(s), that may have been accessed as a result of the incident in order to identify compromised covered defense information, or that affect the Recipient's ability to provide operationally critical support; and

(ii) Rapidly report cyber incidents to DoD at *https://dibnet.dod.mil.*

(2) ***Cyber incident report.*** The cyber incident report shall be treated as information created by or for DoD and shall include, at a minimum, the required elements at *https://dibnet.dod.mil.*

(3) ***Medium assurance certificate requirement.*** In order to report cyber incidents in accordance with this article, the Recipient or Subrecipients/Subcontractors shall have or acquire a DoD-approved medium assurance certificate to report cyber incidents. For information on obtaining a DoD-approved medium assurance certificate, see *https://public.cyber.mil/eca/*.

(d) ***Malicious software.*** When the Recipient or subrecipients/subcontractors discover and isolate malicious software in connection with a reported cyber incident, submit the malicious software to DoD Cyber Crime Center (DC3) in accordance with instructions provided by DC3 or the Agreements officer. Do not send the malicious software to the Agreements officer.

(e) ***Media preservation and protection.*** When a Recipient discovers a cyber incident has occurred, the Recipient shall preserve and protect images of all known affected information systems identified in paragraph (c)(1)(i) of this article and all relevant monitoring/packet capture data for at least 90 days from the submission of the cyber incident report to allow DoD to request the media or decline interest.

(f) ***Access to additional information or equipment necessary for forensic analysis.*** Upon request by DoD, the Recipient shall provide DoD with access to additional information or equipment that is necessary to conduct a forensic analysis.

(g) ***Cyber incident damage assessment activities.*** If DoD elects to conduct a damage assessment, the Agreements officer will request that the Recipient provide all of the damage assessment information gathered in accordance with paragraph (e) of this article.

(h) ***DoD safeguarding and use of recipient attributional/proprietary information.*** The Government shall protect against the unauthorized use or release of information obtained from the recipient (or derived from information obtained from the recipient) under this article that includes recipient attributional/proprietary information, including such information submitted in accordance with paragraph (c).To the maximum extent practicable, the Recipient shall identify and mark attributional/proprietary information. In making an authorized release of such information, the Government will implement appropriate procedures to minimize the recipient attributional/proprietary information that is included in such authorized release, seeking to include only that information that is necessary for the authorized purpose(s) for which the information is being released.

(i) ***Use and release of recipient attributional/proprietary information not created by or for DoD.*** Information that is obtained from the recipient (or derived from information obtained from the recipient) under this article that is not created by or for DoD is authorized to be released outside of DoD -

(1) To entities with missions that may be affected by such information;

(2) To entities that may be called upon to assist in the diagnosis, detection, or mitigation of cyber incidents;

(3) To Government entities that conduct counterintelligence or law enforcement investigations;

(4) For national security purposes, including cyber situational awareness and defense purposes (including with Defense Industrial Base (DIB) participants in the program at 32 CFR part 236); or

(5) To a support services contractor ("recipient") that is directly supporting Government activities under a contract/agreement that includes 48 CFR §252.204-7009, Limitations on the Use or Disclosure of Third-Party Contractor Reported Cyber Incident Information.

(j) ***Use and release of recipient attributional/proprietary information created by or for***

DoD. Information that is obtained from the recipient (or derived from information obtained from the recipient) under this article that is created by or for DoD (including the information submitted pursuant to paragraph (c) of this article) is authorized to be used and released outside of DoD for purposes and activities authorized by paragraph (i) of this article, and for any other lawful Government purpose or activity, subject to all applicable statutory, regulatory, and policy based restrictions on the Government's use and release of such information.

(k) The Recipient shall conduct activities under this article in accordance with applicable laws and regulations on the interception, monitoring, access, use, and disclosure of electronic communications and data.

(l) ***Other safeguarding or reporting requirements.*** The safeguarding and cyber incident reporting required by this article in no way abrogates the Recipient's responsibility for other safeguarding or cyber incident reporting pertaining to its unclassified information systems as required by other applicable articles of this agreement, or as a result of other applicable U.S. Government statutory or regulatory requirements.

(m) ***Subrecipients/Subcontracts.*** The Recipient shall -

(1) Include this article, including this paragraph (m), to subrecipient or subcontracts or similar contractual instruments, for operationally critical support, or for which subrecipient/subcontract performance will involve covered defense information, including subcontracts for commercial items, without alteration, except to identify the parties. The Recipient shall determine if the information required for subrecipient/subcontractor performance retains its identity as covered defense information and will require protection under this article, and, if necessary, consult with the Agreements Officer; and

(2) Require subrecipients/subcontractors to -

(i) Notify the prime Recipient (or next higher-tier subrecipient/subcontractor) when submitting a request to vary from a NIST SP 800-171 security requirement to the Agreements Officer, in accordance with paragraph (b)(2)(ii)(B) of this article; and

(ii) Provide the incident report number, automatically assigned by DoD, to the prime Recipient (or next higher-tier subrecipient/subcontractor) as soon as practicable, when reporting a cyber incident to DoD as required in paragraph (c) of this article.

9.04 RECIPIENT COUNTERFEIT ELECTRONIC PART DETECTION AND AVOIDANCE SYSTEM (AUG 2016)

(a) This article applies only to recipients and agreements that are subject to Cost Accounting Standards as stated in 41 U.S.C §1502(c).

(b) Definitions. As used in this article—

"Authorized aftermarket manufacturer" means an organization that fabricates a part under a contract or agreement with, or with the express written authority of, the original component manufacturer based on the original component manufacturer's designs, formulas, and/or specifications.

"Authorized supplier" means a supplier, distributor, or an aftermarket manufacturer with a contractual arrangement with, or the express written authority of, the original manufacturer or current design activity to buy, stock, repackage, sell, or distribute the part.

"Contract manufacturer" means a company that produces goods under contract for another company under the label or brand name of that company.

"Contractor-approved supplier" means a supplier that does not have a contractual agreement with the original component manufacturer for a transaction, but has been identified as trustworthy by a contractor or subcontractor.

"Counterfeit electronic part" means an unlawful or unauthorized reproduction, substitution, or alteration that has been knowingly mismarked, misidentified, or otherwise misrepresented to be an authentic, unmodified electronic part from the original manufacturer, or a source with the express written authority of the original manufacturer or current design activity, including an authorized aftermarket manufacturer. Unlawful or unauthorized substitution includes used electronic parts represented as new, or the false identification of grade, serial number, lot number, date code, or performance characteristics.

"Electronic part" means an integrated circuit, a discrete electronic component (including, but not limited to, a transistor, capacitor, resistor, or diode), or a circuit assembly (section 818(f)(2) of Pub. L. 112-81).

"Obsolete electronic part" means an electronic part that is no longer available from the original manufacturer or an authorized aftermarket manufacturer.

"Original component manufacturer" means an organization that designs and/or engineers a part and is entitled to any intellectual property rights to that part.

"Original equipment manufacturer" means a company that manufactures products that it has designed from purchased components and sells those products under the company's brand name.

"Original manufacturer" means the original component manufacturer, the original equipment manufacturer, or the contract manufacturer.

"Suspect counterfeit electronic part" means an electronic part for which credible evidence (including, but not limited to, visual inspection or testing) provides reasonable doubt that the electronic part is authentic.

(c) Acceptable counterfeit electronic part detection and avoidance system. The Awardee shall establish and maintain an acceptable counterfeit electronic part detection and avoidance system. Failure to maintain an acceptable counterfeit electronic part detection and avoidance system, as defined in this article, may result in disapproval of the purchasing system by the Agreements Officer and/or withholding of payments and affect the allowability of costs of counterfeit electronic parts or suspect counterfeit electronic parts and the cost of rework or corrective action that may be required to remedy the use or inclusion of such parts (see 48 CFR §231.205-71).

(d) System criteria. A counterfeit electronic part detection and avoidance system shall include risk-based policies and procedures that address, at a minimum, the following areas:

(1) The training of personnel.

(2) The inspection and testing of electronic parts, including criteria for acceptance and rejection. Tests and inspections shall be performed in accordance with accepted Government- and industry-recognized techniques. Selection of tests and inspections shall be based on minimizing risk to the Government. Determination of risk shall be based on the assessed probability of receiving a counterfeit electronic part; the probability that the inspection or test selected will detect a counterfeit electronic part; and the potential negative consequences of a counterfeit electronic part being installed (e.g., human safety, mission success) where such consequences are made known to the Awardee.

(3) Processes to abolish counterfeit parts proliferation.

(4) Risk-based processes that enable tracking of electronic parts from the original manufacturer to product acceptance by the Government, whether the electronic parts are supplied as discrete electronic parts or are contained in assemblies, in accordance with paragraph (c) of the clause at 252.246-7008, Sources of Electronic Parts (also see paragraph (c)(2) of this article).

(5) Use of suppliers in accordance with the clause at 48 CFR §252.246-7008.

(6) Reporting and quarantining of counterfeit electronic parts and suspect counterfeit electronic parts. Reporting is required to the Agreements Officer and to the Government-Industry Data Exchange Program (GIDEP) when the Awardee becomes aware of, or has reason to suspect that, any electronic part or end item, component, part, or assembly containing electronic parts purchased by the DoD, or purchased by a Recipient for delivery to, or on behalf of, the DoD, contains counterfeit electronic parts or suspect counterfeit electronic parts. Counterfeit electronic parts and suspect counterfeit electronic parts shall not be returned to the seller or otherwise returned to the supply chain until such time that the parts are determined to be authentic.

(7) Methodologies to identify suspect counterfeit parts and to rapidly determine if a suspect counterfeit part is, in fact, counterfeit.

(8) Design, operation, and maintenance of systems to detect and avoid counterfeit electronic parts and suspect counterfeit electronic parts. The Awardee may elect to use current Government- or industry-recognized standards to meet this requirement.

(9) Flow down of counterfeit detection and avoidance requirements, including applicable system criteria provided herein, to subcontractors/subrecipients at all levels in the supply chain that are responsible for buying or selling electronic parts or assemblies containing electronic parts, or for performing authentication testing.

(10) Process for keeping continually informed of current counterfeiting information and trends, including detection and avoidance techniques contained in appropriate industry standards, and using such information and techniques for continuously upgrading internal processes.

(11) Process for screening GIDEP reports and other credible sources of counterfeiting information to avoid the purchase or use of counterfeit electronic parts.

(12) Control of obsolete electronic parts in order to maximize the availability and use of authentic, originally designed, and qualified electronic parts throughout the product's life cycle.

(e) The Awardee shall include the substance of this article in subcontracts and subrecipients, including subcontracts for commercial items, for electronic parts or assemblies containing electronic parts.

9.05 PROHIBITION ON MAKING AWARDS FOR CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (AUG 2020)

(a) *Definitions.* As used in this article—

Backhaul means intermediate links between the core network, or backbone network, and the small subnetworks at the edge of the network (e.g., connecting cell phones/towers to the core telephone network). Backhaul can be wireless (e.g., microwave) or wired (e.g., fiber optic, coaxial cable, Ethernet).

Covered foreign country means The People's Republic of China.

Covered telecommunications equipment or services means—

(1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);

(2) For the purpose of public safety, security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);

(3) Telecommunications or video surveillance services provided by such entities or using such equipment; or

(4) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Critical technology means—

(1) Defense articles or defense services included on the United States Munitions List set forth in the International Traffic in Arms Regulations under subchapter M of chapter I of title 22, Code of Federal Regulations;

(2) Items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations, and controlled—

    (i) Pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology; or

    (ii) For reasons relating to regional stability or surreptitious listening;

(3) Specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities);

(4) Nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material);

(5) Select agents and toxins covered by part 331 of title 7, Code of Federal Regulations, part 121 of title 9 of such Code, or part 73 of title 42 of such Code; or

(6) Emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. 4817).

Interconnection arrangements means arrangements governing the physical connection of two or more networks to allow the use of another's network to hand off traffic where it is ultimately delivered (e.g., connection of a customer of telephone provider A to a customer of telephone company B) or sharing data and other information resources.

Reasonable inquiry means an inquiry designed to uncover any information in the entity's possession about the identity of the producer or provider of covered telecommunications equipment or services used by the entity that excludes the need to include an internal or third-party audit.

Roaming means cellular communications services (e.g., voice, video, data) received from a visited network when unable to connect to the facilities of the home network either because signal coverage is too weak or because traffic is too high.

Substantial or essential component means any component necessary for the proper function or performance of a piece of equipment, system, or service.

(b) Prohibition.

(1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing an award to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. The Recipient is prohibited from providing to the Government any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this article applies or the covered telecommunication equipment or services are covered by a waiver by the Secretary of the Air Force in consultation with the Office of the Director of National Intelligence (ODNI).

(2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into an award, or extending or renewing an award, with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this article applies or the covered telecommunication equipment or services are covered by a waiver by the Secretary of the Air Force in consultation with the Office of the Director of National Intelligence (ODNI). This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal award.

(c) *Exceptions.* This article does not prohibit Recipients from providing—

(1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(d) *Reporting requirement.*

(1) In the event the Recipient identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during award performance, or the Recipient is notified of such by a subrecipient at any tier or by any other source, the Recipient shall report the information in paragraph (d)(2) of this article to the Agreements Officer, unless elsewhere in this award are established procedures for reporting the information; in the case of the Department of Defense, the Recipient shall report to the website at *https://dibnet.dod.mil.* For indefinite delivery agreements, the Recipient shall report to the Agreements Officer for the indefinite delivery agreement and the Agreements Officer(s) for any affected order or, in the case of the Department of Defense, identify both the indefinite delivery award and any affected orders in the report provided at *https://dibnet.dod.mil.*

(2) The Recipient shall report the following information pursuant to paragraph (d)(1) of this article:

(i) Within one business day from the date of such identification or notification: The award number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this article: Any further available information about mitigation actions undertaken or recommended. In addition, the Recipient shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

(e) *Subawards.* The Recipient shall insert the substance of this article, including this paragraph (e) and excluding paragraph (b)(2), in all subawards and other contractual instruments, including awards for the acquisition of commercial items.

(End of Articles)

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 333-255147 and No. 333-256925) and Form S-3 (No. 333-266071) of Perpetua Resources Corp. of our report dated March 16, 2023 relating to the financial statements, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Denver, Colorado
March 16, 2023

March 16, 2023

CONSENT OF QUALIFIED PERSON

Re: Form 10-K of Perpetua Resources Corp. (the "Company")

I, Christopher Dail, hereby consent to the use of and reference to my name, Christopher Dail, AIPG CPG #10596, and the information that I reviewed and approved, as described or incorporated by reference in (i) the Company's Annual Report on Form 10-K for the year ended December 31, 2022, and (ii) the Company's Registration Statements on Form S-8 (Registration No. 333-256925 and 333-255147) and Form S-3 (Registration No. 333-266071), filed with the U.S. Securities and Exchange Commission.

By: /s/ Christopher Dail

Name: Christopher Dail

Exhibit 31.1

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Laurel Sayer, Chief Executive Officer and President of Perpetua Resources Corp. certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2022 of Perpetua Resources Corp.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this Report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant, as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 16, 2023

/s/ Laurel Sayer

Laurel Sayer
Chief Executive Officer and President

Exhibit 31.2

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Jessica Largent, Chief Financial Officer of Perpetua Resources Corp. certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2022 of Perpetua Resources Corp.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this Report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant, as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 16, 2023

/s/ Jessica Largent

Jessica Largent
Chief Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Perpetua Resources Corp., (the "Company") on Form 10-K for the year ended December 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Laurel Sayer, Chief Executive Officer and President of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 16, 2023

/s/ Laurel Sayer
Laurel Sayer

Chief Executive Officer and President

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Perpetua Resources Corp., (the "Company") on Form 10-K for the year ended December 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jessica Largent, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 16, 2023

/s/ Jessica Largent
Jessica Largent

Chief Financial Officer