



Director of Metallurgy

Project: Stibnite Gold Project - Stibnite, Idaho, USA

Work Location: Boise Office, Remote, Site, and travel to EPCM Home Office (Toronto)

Salary: Competitive

Employment Type: Full-Time, Regular Employee

Application Deadline: Position open until filled

About Perpetua Resources

Perpetua Resources is an Idaho-based company committed to responsible mining and environmental stewardship. Our mission is to restore the abandoned Stibnite Mining District while responsibly developing its rich resources of gold and antimony—an essential mineral for national defense and sustainable technologies.

Why Join Us?

- Environmental Restoration: Be part of a team dedicated to restoring ecosystems and improving water quality in historically impacted mining areas.
- Innovative Projects: Contribute to the Stibnite Gold Project, designed to responsibly develop critical mineral resources while rehabilitating the environment.
- Community Engagement: Work with a company that values transparent partnerships and actively invests in local communities.
- Professional Growth: Join a diverse team of scientists, engineers, and environmentalists committed to excellence and innovation.

At Perpetua Resources, we believe in balancing resource development with environmental care to create a sustainable future. Join us in making a lasting, positive impact on Idaho and beyond.

 [Learn more at www.perpetuaresources.com](http://www.perpetuaresources.com)

About The Position

The Director of Metallurgy is a senior technical leadership role responsible for the strategic direction, technical governance, and operational optimization of all metallurgical and mineral processing activities across the company's portfolio of mining operations and development projects. This role ensures that metallurgical processes are designed, operated, and continuously improved to maximize metal recovery, throughput, product quality, and overall value while maintaining the highest standards of safety, environmental stewardship, and regulatory compliance.

The Director of Metallurgy provides technical leadership from exploration and project development through operations, expansion, and closure. The role partners closely with mine operations, engineering, geology, sustainability, and executive leadership to ensure metallurgical performance aligns with corporate objectives, life-of-mine plans, and long-term growth strategies.

Essential Duties and Responsibilities

1. Strategic Leadership and Governance

- Develop and implement the company's long-term metallurgical strategy in alignment with corporate goals, asset development plans, and capital allocation priorities.
 - Establish metallurgical standards, best practices, design criteria, and operating philosophies applicable to the Stibnite project and future projects and expansions.
 - Provide executive-level technical guidance and decision support related to metallurgical risks, opportunities, and trade-offs.
 - Act as the company's senior subject matter expert in metallurgy and mineral processing, representing the organization internally and externally.
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2. Operational Support and Optimization

- Oversee metallurgical performance at site, including comminution for both ore and limestone, flotation, High Pressure Oxidation, leaching, refining, thickening, filtration, tailings, and product handling.
- Drive continuous improvement initiatives to increase recovery, throughput, reliability, and cost efficiency.
- Guide, support, and participate in the development of optimal ore blending strategies to optimize the overall ore processing.
- Oversight and management of all metallurgical and process engineering work performed by consultants.
- Ensure the alignment and quality of assay, chemical and metallurgical laboratories.
- Work closely with the geology team to establish a Geo-Met model that will accurately predict performance of the 3D block models, blending, and processing strategies.
- Lead the development of metallurgical and process reporting standards for the site.
- Identify and resolve complex metallurgical issues impacting plant performance, product quality, or operational stability.
- Review, audit, and validate metallurgical accounting systems, testwork, plant surveys, mass balances, and performance reports.

- Support operations in troubleshooting, debottlenecking, and implementing process improvements.
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3. Project Development and Capital Projects

- Provide metallurgical leadership for all project phases, including scoping studies, prefeasibility studies (PFS), feasibility studies (FS), detailed engineering, construction, commissioning, and ramp-up.
 - Define metallurgical test programs and ensure appropriate interpretation and application of test results and incorporate into the Process Design Criteria.
 - Review and approve metallurgical design criteria, process flow diagrams, equipment selection, and process guarantees.
 - Support capital project evaluations, including trade-off studies, technology selection, risk assessments, and value engineering.
 - Participate in stage-gate reviews and investment committee presentations.
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4. Metallurgical Testwork and Technology Development

- Oversee metallurgical laboratory programs, pilot plant testing, and external testwork providers.
 - Evaluate emerging technologies, novel processing routes, and digital solutions that may improve performance, sustainability, or economics.
 - Promote innovation while ensuring that risks are appropriately assessed and managed.
 - Support intellectual property development, proprietary processes, and strategic partnerships where applicable.
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5. Health, Safety, Environment, and Sustainability

- Champion a strong safety culture within metallurgical teams and processing operations.
 - Ensure metallurgical processes comply with all applicable health, safety, environmental, and regulatory requirements.
 - Integrate sustainability principles into metallurgical design and operations, including water management, energy efficiency, reagent optimization, waste reduction, and tailings stewardship.
 - Support corporate ESG objectives by identifying opportunities to reduce environmental footprint and improve social performance.
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6. People Leadership and Capability Development

- Lead, mentor, and develop a team of metallurgists and process engineers across corporate and site-based roles.
- Define organizational structures, roles, and competency requirements for metallurgical teams.
- Support recruitment, onboarding, performance management, and succession planning.

- Foster a culture of collaboration, accountability, technical excellence, and continuous learning.
 - Promote knowledge sharing and standardization across sites and projects.
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7. Financial and Commercial Support

- Contribute to annual budgeting, forecasting, and life-of-mine planning from a metallurgical perspective.
 - Support cost optimization initiatives related to reagents, consumables, maintenance, and energy usage.
 - Provide metallurgical input to marketing and sales teams related to product quality, specifications, and penalties.
 - Assist with due diligence for mergers, acquisitions, joint ventures, and strategic investments.
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8. Stakeholder Engagement and Reporting

- Prepare and present metallurgical reports and recommendations to executive leadership, the Board, and external stakeholders.
 - Engage with regulators, consultants, vendors, research institutions, and industry bodies as required.
 - Support technical disclosures for public reporting, including reserves and resources, technical reports, and investor presentations.
 - Act as a technical representative during audits, reviews, and independent assessments.
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Schedule & Logistics

The Director of Metallurgy can be based in the Perpetua Resource's Headquarters in Boise, Idaho with the potential for remote work. Travel will be necessary to other locations, including Stibnite, Donnelly, Boise and EPCM Home Office (Toronto).

Required Knowledge, Skills and Abilities

Education

- Bachelor's degree in Metallurgical Engineering, Mineral Processing, Chemical Engineering, or a related discipline (required).
- Professional Engineer (PE, P.Eng., or equivalent) registration is highly desirable.

Experience

- Minimum of 15–20 years of progressive experience in metallurgy and mineral processing within the mining industry. Gold processing is a must and POX experience is preferred.
- Demonstrated experience in both operating environments and project development.

- Proven track record of improving metallurgical performance and delivering value through technical leadership.
 - Experience managing and leading multidisciplinary technical teams across multiple sites or projects.
 - Exposure to a range of commodities (e.g., base metals, precious metals, bulk commodities) is an asset.
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Technical Competencies

- Deep understanding of mineral processing principles and metallurgical flowsheets.
 - Strong experience with metallurgical testwork design, interpretation, and scale-up.
 - Knowledge of plant design, commissioning, and operational optimization.
 - Familiarity with metallurgical accounting, mass balancing, and performance monitoring tools.
 - Understanding of tailings management, water balance, and environmental considerations.
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Leadership and Behavioral Competencies

- Strategic thinker with strong business acumen.
 - Decisive, results-oriented leader with the ability to manage risk and complexity.
 - Excellent communication and presentation skills, capable of engaging technical and non-technical audiences.
 - Collaborative leadership style with the ability to influence across functions and geographies.
 - High level of integrity, professionalism, and commitment to safety and sustainability.
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Physical & Environmental Requirements

- Main office based in Boise, Idaho, with remote work, regular travel to EPCM office and mine site once construction activities start and during operations (domestic and international as required).
 - Exposure to operating mine environments during site visits.
 - May be required to support operational or project-critical activities outside standard business.
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What We Offer

At **Perpetua Resources**, we are committed to supporting our employees with a comprehensive benefits package that promotes well-being, financial security, and career growth. We believe in fostering a workplace where our team members thrive personally and professionally.

What We Offer:

Health & Wellness

- Comprehensive medical, dental, and vision insurance
- Health savings account (HSA) available with eligible health plan choice
- Employee assistance program (EAP) for mental health and well-being
- Company-paid Life Flight membership for employees/immediate family
- Pre-tax Flexible Spending Accounts (FSAs) for medical and dependent care expenses

Financial Security

- Competitive salary
- Short-Term Incentive Plan (STIP) – Annual performance-based bonus program
- Long-Term Incentive Plan (LTIP) – Equity-based compensation for long-term success
- 401(k) retirement plan with company matching contributions
- Employee Assistance Program

Work-Life Balance

- Paid time off (PTO) and company-recognized holidays
- Parental leave
- Flexible work arrangements (role-dependent)

Professional Growth

- Career advancement opportunities within a growing company
- Industry conference attendance and networking opportunities
- Internal training programs and cross-functional learning

Additional Perks

- Company-paid professional memberships (e.g., industry associations, networking groups)
- Travel assistance and reimbursement for work-related conferences or site visits
- Commitment to sustainability and community engagement

At **Perpetua Resources**, we take pride in creating a workplace where employees feel valued and empowered. If you're looking for a career that combines purpose, growth, and a strong team environment, we'd love to have you join us!

What we Require

- Candidates may be required to pass a medical exam.
- Candidates must pass all required training and/or testing.

- Perpetua Resources Idaho Inc. promotes a drug/alcohol-free work environment using mandatory pre-employment drug testing and on-going drug and alcohol testing, as allowed by applicable laws.
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Ready to Join the Perpetua Resources Team?

If you're passionate about making a difference in one of the most environmentally driven mining projects in the country, we'd love to hear from you!

 To apply: Send resume and cover letter directly to employment@perpetua.us

Perpetua Resources is committed to equal employment opportunity. All qualified applicants will be considered without regard to race, color, sex, age, religion, national origin, disability, or any other characteristic protected by federal, state, or local law.