



## **Position:** Chemical Engineering Co-op

**Position Type:** Co-op (Full Time)

**Location:** Woburn, MA

### **About Phoenix Tailings**

Each year the mining industry produces over 200 billion tons of tailings, a waste that comes from global mining operations. Phoenix Tailings is on a mission to eliminate this harmful waste from the environment while sustainably extracting valuable materials. To learn more, please visit: [Re-Mined Products — Phoenix Tailings](#)

### **Why Phoenix Tailings**

At Phoenix, we believe that nothing great is ever accomplished alone or without the passion of people who push and motivate one another. If you are someone who has the desire to better the world, to resolve environmental problems with a global impact, and you are excited about solving the problems and challenges that come with building a startup, this is the place for you.

### **What we do**

At Phoenix, we build novel chemical processing techniques and technologies that are on the forefront of extracting critical materials that were previously trapped in tailings, solving the waste remediation process of the mining industry, and revolutionizing the mining industry with our zero waste mining solutions.

### **What you will do**

Phoenix is a fast-paced startup, and we are looking for enthusiastic-technical minded people with a hands-on attitude to join us in our engineering effort. In this position, you'll be working cross-functionally with the entire engineering team that's composed of material, metal, chemical, and R&D engineers, and scientists. You will be involved in several different projects that span across the entirety of Phoenix's technology stack. Position requires an 'action orientation,' with high energy and enthusiasm, initiative to constantly improve operational processes, including replacing them altogether with the latest available innovation and technology through collaboration and research.

### **Responsibilities:**

- Research and development on bulk processing and niche product formulation and scale-up via:
  - Managing and scaling systems from lab scale to pilot
  - Developing experimental grids to validate assumption and pathways for scaling
  - Utilizing multiple characterization techniques via SEM, XRD, XRF, viscometer, spectrometer, and an assortment of other analytical equipment
- Aid in Process Development via:
  - Modeling (utilizing multiple software systems such as METSIM and SysCAD)
  - Scale Up Research and Development
  - Techno-Economic studies and grids



# PHOENIX TAILINGS

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- PFD / P&ID buildout
- Equipment integration and control logic development
- Sizing and acquiring required equipment
- Aid Senior Engineering Team with the following:
  - Preparation of laboratory scale experiments and resulting analysis for model validation
  - Detailed documentation of process methods and results
  - Execute SOPs and protocols for laboratory and small-scale reactors
- Maintain a clean, safe, and organized laboratory environment
- Interpret and present results to team leadership

## What you have

- Current student at an accredited university pursuing an undergraduate degree or a graduate degree in a technical field, Chemical Engineering, Process Engineering, Materials Science and Engineering, Metallurgy, or Mechanical Engineering preferred
- Has at least 1 previous co-op or internship experience (Research & Development, Formulation, and Process Engineering background preferred)
- Coursework or research experience in a chemical laboratory
- Knowledge of metallic materials and inorganic chemistry
- Familiarity with ASPEN, METSIM, HSC, FactSage, or similar program a plus
- Familiarity with equipment such as SEM, XRF, spectroscopy, and similar a plus
- Strong technical and communication skills
- Ability to work independently on projects with minimal supervision
- Excellent organization and communication skills and a team player and collaborator
- Ability to work in a fast-paced, flexible start-up environment
- Strong technical and communication skills
- Ability to work independently on projects with minimal supervision
- Curious and excited about learning new technologies and working as a part of a dynamic team

At Phoenix Tailings we have an open culture that values learning, and we are looking to grow the team with enthusiastic individuals who share our vision of sustainable mining. This is an opportunity to work in an innovative, fun, and fast paced environment focused on revolutionizing how the world's primary resources are created. Come join us on our mission to create a zero-waste world!

*Phoenix Tailings, Inc. is an Equal Opportunity employer, and we value diversity at all levels. All qualified candidates will receive consideration for employment without regard to race, color, religion, sex (including gender identity, sexual orientation, and pregnancy), national origin, age, disability or genetic information or any other applicable protected characteristics and these characteristics will not be a factor for consideration of any work-related decisions (including but not limited to hiring, firing, compensation, and discipline).*