Mining and Processing at Thacker Pass

Since 2008, we have worked to minimize the environmental footprint of Thacker Pass beyond what is required by regulatory standards.

**How Will Lithium be Mined and Processed at Thacker Pass?**

The sedimentary-clay deposit at Thacker Pass uses similar mining techniques to many coal deposits.

Building a sulfuric acid plant on site reduces the number of trucks on the road as each ton of sulfur can create three tons of sulfuric acid, and sulfur is much safer to transport. The production of sulfuric acid also produces steam which we will use to generate carbon-free power for the processing plant.

- **Open Pit Mining**
- **Attrition Scrubbing** is the mixing of ore with recycled water to form a slurry
- **Water** (2,600 acre-feet/year in Phase 1)
- **Air**
- **Sulfur** is safer and less energy-intensive to transport than sulfuric acid

**Sulfuric Acid Plant**

- **Electricity** to power the processing plant will be generated from the steam produced by the sulfuric acid plant

**Battery-quality lithium chemicals**

- **Filtered Stack Clay Tailings**
- Any sand and rocks not containing lithium from the Ore Beneficiation process is filter-pressed to remove any wash solution. Any wash solution recovered is recycled back into the attrition scrubber process.

The residue from the Ore Beneficiation and Neutralization steps is sent to the Filtered Stack Clay Tailings facility where it is mixed with crushed limestone to produce a geotechnically stable clay tailings.
Thacker Pass will be mined in blocks, once one block is mined to the bottom (average depth of 300 feet), mining will move to the next block while backfilling begins in the previously mined area.

Block mining allows us to reclaim the land quickly while mining still occurs. The backfilled pit would then be capped with topsoil and revegetated with native species.

Reclamation and Closure Planning

Our approach to mine closure begins before mining starts and carries on throughout the life cycle of the mine. We create closure plans grounded in our principles—ensuring safety and stability, promoting socioeconomic transition and contributing to risk mitigation.

Thacker Pass will be backfilled and revegetated to minimize long-term visual impacts and to allow for the substantial restoration of pre-project land uses by wildlife.

North American Coal has over 60 years of surface mining experience and manages reclamation for over 200,000 acres under regulatory permits. Their extensive reclamation history has earned them over 94 federal and state awards in the last 30 years, which includes reclaiming 61,000 acres of land, reconstructing over 54.5 miles of streams and over 1,449 acres of wetlands and planting over 8.8 million trees.