

# Tailings Storage Facility

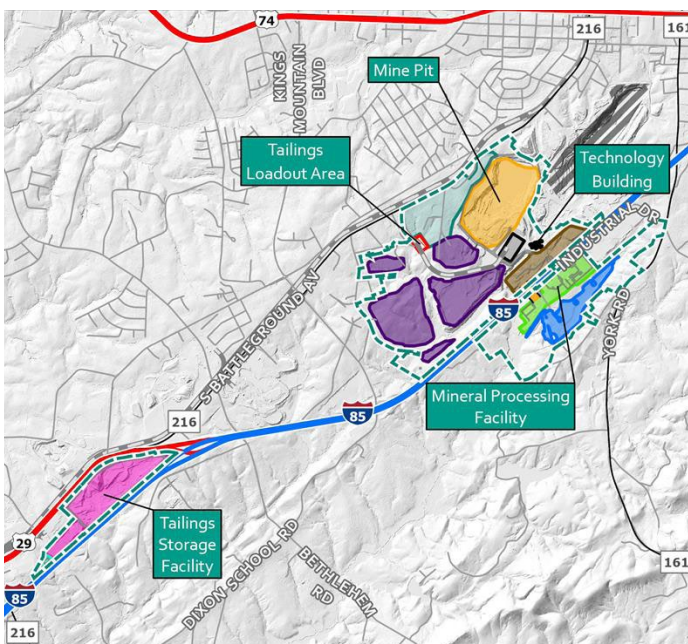
Mine tailings are by-products of mining, consisting of material left over from the separation of the sought-after minerals from the rock or soil. These materials include processed rock and minerals that are typically sand to clay-like in particle size.

## MANAGING THE STORAGE OF MINE TAILINGS

Following industry standard practice, Albemarle plans to store its tailings within an engineered storage facility called a tailings storage facility (TSF). The TSF is designed to contain the tailings with a structural embankment of strong soils and/or rockfill. Albemarle has engaged industry-recognized engineering consultants to design the TSF to mitigate environmental impacts and physical instability risks.

The TSF will be on a 131-acre property about three miles southwest of the Kings Mountain Mine. Much of the property was previously used for mica mining activities.

## Map of TSF Location



After the tailings are separated at the mineral processing facility, the material is conveyed to the north side of I-85 to a tailings loadout area. Tailings from the stockpile will be loaded via front-end loaders directly into trucks for transport to the TSF.

## REDUCING RISKS THROUGH DRY STACK TAILINGS

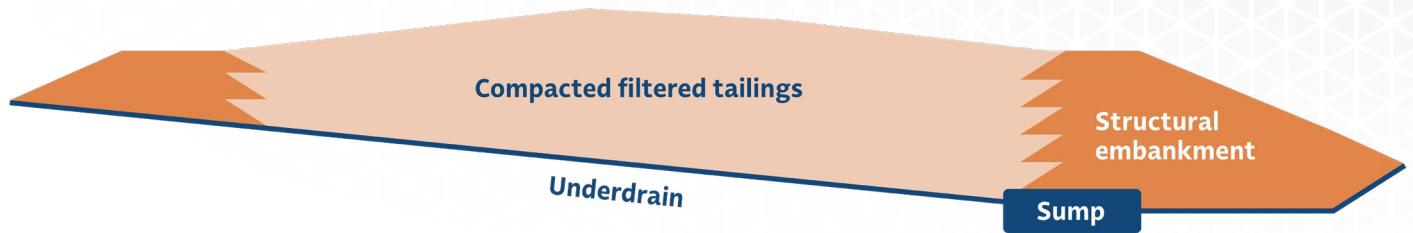
Albemarle intends to adopt an industry best practice known as “dry stacking” for its TSF. Most mines mix tailings with water to form a slurry, which is then pumped to the TSF for storage. This results in significant water usage, water ponds on top of the TSF, and increased seepage of water through the facility which can potentially compromise its stability and impact the environment.



**Dry stacking the tailings can reduce the site’s water requirements, improve the facility’s safety and stability and reduce water seepage.**

Alternatively, Albemarle has chosen to design a dry stack TSF, where the tailings will pass through a filtration process designed to remove most of the water within the material until it resembles something like moist beach sand. After being hauled to the TSF facility, the tailings are spread in layers to form a stockpile. The structural embankment is designed to be raised progressively as the talings’ layers are place to ensure containment.

## Side Profile of Facility Design



### MANAGING WATER AND EROSION

Managing rainfall and preventing water collection on top of a dry stack TSF is considered a good practice during and after the facility's construction. Albemarle's TSF is designed to be constructed in a way that allows surface water to be collected and channeled to erosion-resistant collection ditches or pumped off the facility to reduce infiltration into the tailings. Water that does make its way into the tailings is expected to be collected within an underdrain at the base of the TSF and tested to ensure it does not impact the groundwater.

During construction, the outer surface of the structural embankment will be progressively covered with a layer of rock, soil and/or a liner to prevent erosion from wind and rain. After construction of the TSF is complete, an engineered cover material of soil, rock and/or a liner, is planned to be placed over the top of the tailings to prevent erosion and limit future infiltration of water.

### MAINTAINING FACILITY INTEGRITY

During operations, Albemarle anticipates monitoring the TSF using scheduled visual inspections, drone flyovers and surveys. Instruments in the slopes of the TSF structure are intended to detect adverse movement and provide early signals of changes in slope stability. In addition, Albemarle plans to perform periodic inspections to confirm the facility is operating per the design, and independent engineers are expected to periodically inspect the TSF to confirm the operation and design of the facility is following U.S. and global standards.

### IMPLEMENTING INDUSTRY STANDARDS TO SUPPORT MINE OPERATIONS

As part of its due diligence and as required by the regulatory authorities, Albemarle intends to conduct a series of tests to better understand the physical

properties and chemical makeup of the tailings before mining commencement. Through this process, a "batch" of materials are sent through a similar separation process to the one planned during mining operations to create a portion of tailings for our testing programs. Through a well-established industry standard approach, modeling and assessment are performed to ensure impacts from the tailings are minimized to the surrounding community.

At Kings Mountain, we are also testing our existing tailings within our legacy TSF to confirm the tailings behavior and chemical makeup have remained consistent and safe over the past 40 years. This data is useful in calibrating the ongoing analysis and design of the proposed TSF.



**Albemarle plans to monitor the tailings storage facility for stability using visual inspections, use of instrumentation and periodic inspections by independent engineers.**

Further information is available in Spanish upon request or at [albemarlekingsmountain.com](http://albemarlekingsmountain.com)

For more information or to provide community feedback on the project:  
Email: [kmcommunity@albemarle.com](mailto:kmcommunity@albemarle.com) | Phone: 704-734-2775 | Website: [albemarlekingsmountain.com](http://albemarlekingsmountain.com)  
Mail or In-person: 129 West Mountain Street, Kings Mountain, NC 28086

Albemarle leads the world in transforming essential resources into critical ingredients for mobility, energy, connectivity and health. We partner to pioneer new ways to move, power, connect and protect with people and planet in mind, enabling a more resilient world. Our global headquarters is approximately 35 miles from Kings Mountain in Charlotte, NC.

