

# Blasting Operations

To restart mining operations at the Kings Mountain Mine, Albemarle intends to extend and deepen the existing mine pit. The existing 2,300-foot mine pit will be extended by 900 feet to the southwest and the pit's depth will be increased from 265 feet to approximately 715 feet at its deepest point.



Modern blasting is a highly regulated process where safe blasting and explosive management standards are required.

## BLASTING PREPARATION AT KINGS MOUNTAIN

The blasting process begins by using computer modeling to design an efficient and well-controlled blast. To prepare for blasting operations, a series of holes are drilled into the rock. The holes are filled with an explosive, each with a primer connected to a computer-controlled initiator. Lasting only a fraction of a second, a blast is part of a series of carefully timed detonations that are designed to minimize vibration and noise and to produce the desired rock fragmentation.

## DEVELOPING A DRILL AND BLAST STRATEGY

Albemarle is working with experienced blasting consultants to develop a drill and blast management strategy. The strategy's purpose is to identify and mitigate potential risks posed by blasting such as rocks propelled by the blast, ground vibrations, noise, fumes and dust.

## SAFETY DURING BLASTING

Modern blasting is a highly controlled process. Albemarle will follow safe blasting standards and explosive management standards as required by the Mine Safety and Health Administration, the Bureau of Alcohol, Tobacco, Firearms and Explosives, the North Carolina Department of Environmental Quality and all applicable North Carolina state statutes. These include:

- An experienced and licensed contractor is required to handle all explosives
- No storage of explosives at the mine site
- All blasts are not to exceed identified seismic exceedance levels



**The technology used in modern blasting to design the blast patterns and control the detonations is far more efficient;** *producing less vibration than the blasting techniques previously used at the Kings Mountain Mine.*

## BLASTING FREQUENCY

Typically, two to five blasts will occur each week, with a maximum of one blast conducted per day. Blasting is expected to occur only during business hours, and meteorological conditions will be monitored for unfavorable conditions like heavy winds.

Albemarle does not anticipate that noise and vibration will be significantly greater than existing background levels from the operating quarry next to our property. Landscaped berms and/or prefabricated noise barriers will be used at certain locations throughout the site to help buffer adjacent properties. Rock stockpiles and existing topography are also expected to lessen potential noise and vibrations.

## MITIGATING NOISE AND VIBRATIONS FROM BLASTING

A noise monitoring and mitigation plan is planned to be developed with results provided quarterly. A network of nine monitoring stations has been installed around the site to assess vibration and noise levels produced by the blasts and confirm they are well below established thresholds.

All blasts are designed to be monitored with a seismograph located near the closest offsite property not owned or leased by the operator.



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Albemarle also may use controlled trial blasts to determine the frequency and impacts of the ground vibration waves. Additional precautions may include:

- Constraining blast sound levels to less than 129 decibels at the nearest structure
- Avoiding blasts during environmental conditions that amplify the effects of mine blasting such as strong gusts toward population centers
- Using controlled blasting techniques

## COORDINATION AND COMMUNICATION

Albemarle plans to maintain communications channels and processes to address concerns as soon as they are notified. The time and location of blasts will be displayed at all entry points into the pit. It should be noted that blasting operations will not begin until all mine permits are issued.

If blasting activity exceeds the acceptable levels for seismic levels, noise, or rocks are propelled from the blast, plans call for operations to cease and for a thorough investigation to be conducted to prescribe corrective actions. The investigation may include regulatory entities if necessary.

To report an incident or complaint, visit [albemarlekingsmountain.com](http://albemarlekingsmountain.com), call 704-734-2775, email [kmcommunity@albemarle.com](mailto:kmcommunity@albemarle.com) or visit our Project Center at 129 West Mountain Street, Kings Mountain, NC 28086.



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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.

