

# Quarry Academy Continues to Provide Tools for Today's Economic Climate



## Project Summary

### DYNO NOBEL TEAMS WITH SANDVIK MINING TO PROVIDE CUSTOMERS WITH TOOLS TO COMPETE IN AN EVER-CHANGING BUSINESS ENVIRONMENT

"Counting each ton and making each ton count" is a required mindset in today's difficult economy where companies are looking to minimize mining costs, maximize reserves and increase profits. With the radical shift in the market environment, special emphasis at the Quarry Academy is given to balancing unit operations with total process outcomes while maintaining standards of safety and best practices throughout the mining and crushing process.

Quarry Academy not only addresses critical processes within the quarry operation, but also focuses on the relationship between each production process and how these processes systematically interact with one another and can be linked to enhance overall operational improvement.



## Background

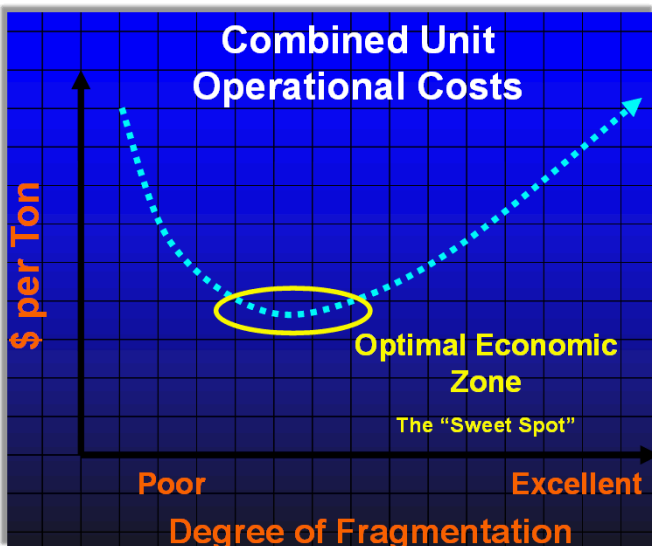
### TEAMING UP TO HELP CUSTOMERS' BOTTOM LINE

Quarry Academy is one of the derivatives of a working technical alliance between Sandvik Mining and Construction and Dyno Nobel. Sandvik's Training Center in Atlanta, Georgia hosted Quarry Academy 2011, marking the fourth time quarry owners and managers have gathered to learn how to make their operations more efficient, more profitable and more competitive.

## Project Goals

### CHANGING THE VIEW FROM LOWEST COST TO OVERALL PROFITABILITY

The Quarry Academy is all about assisting customers with the issues they are facing today and the issues that will present themselves in the future. The traditional approach of "silo" costing is ineffective in today's new business environment; drilling, blasting, crushing, sizing, loading and hauling cannot be thought of as separate activities. Instead, each activity is part of a total value chain and the key is to attain the optimal cost zone.



**DYNO**  
Dyno Nobel

**Groundbreaking Performance**

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## Technology Applied

### A CHANCE TO VIEW THE ENTIRE PRODUCTION CYCLE WITH A FOCUS ON LOWERING TOTAL COSTS

In 2011, Quarry Academy offered customers interactive classes and workshops on a variety of topics taught by a team of 10 subject-matter experts, each with more than 20 years of industry experience in quarry and mining operations around the world.

The focus was not placed on Sandvik or Dyno Nobel products, but rather, on the processes within the quarry operation that drive productivity and improve efficiency, creating a baseline for developing a better drill and blast program.

In addition to classroom presentations, attendees received hands-on training using Sandvik's state-of-the-art drill training simulator and visited a local quarry to participate in four different workshops and field demonstrations: Signature Waveform Data Collection; Drill Deviation Control & Measurement review; Crushing; and Electronic Detonator Technology.



## Value Added

### A WORLD-CLASS FACULTY AND INTERACTION WITH PEERS PROVIDE ATTENDEES WITH A UNIQUE OPPORTUNITY

Jeff Heinemann, Vice President / Construction Segment said, "The common thread heard throughout the Academy was, 'It is competitive out there.' And that's the reason we need to use lean thinking and technology to reduce cost and remain competitive. Our instructors were the best of the best with many years of combined dedication to the industry from Dyno Nobel, Sandvik, Volvo and River Logic. They covered a range of topics in the value chain. I have no doubt each attendee will take away one item that, once implemented, will make their operation more profitable."

By sharing best practices and by listening to customers, Dyno Nobel and Sandvik will be able to better serve their customers. Alex Scott, Regional Manager, International Product Support /Sandvik Mining and Construction, summed up the three-day course by saying, "It's really about understanding the complete value chain and gaining control by monitoring your operation on a regular basis."

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