

# Aggregate Quarry Inventory Documentation



## Background

### USING A REFLECTOR-LESS LASER SYSTEM TO PROFILE NUMEROUS STOCKPILES

As a result of the 2002 Sarbanes-Oxley Act (SOX), aggregate producers in the United States were tasked with accurately documenting crushed stone inventories at the end of each fiscal year much like any retail store.

Due to the complexity and size of stockpiles and many quarry operations, the use of 3D laser profiling systems commonly used for face profiling offered an alternative to costly and time consuming aerial photogrammetry methods.

Aggregate producers looked to their vendors as a possible solution to meeting the SOX requirement. Being able to provide a solution to this need provides an additional relationship between supplier and customer.

Using a reflector-less laser system to profile numerous stockpiles requires a defined methodology and understanding of the limitations of the system. Data must be collected quickly and during times of limited production and sales to try to replicate the “snapshot” imagery collected by aerial measurement systems.

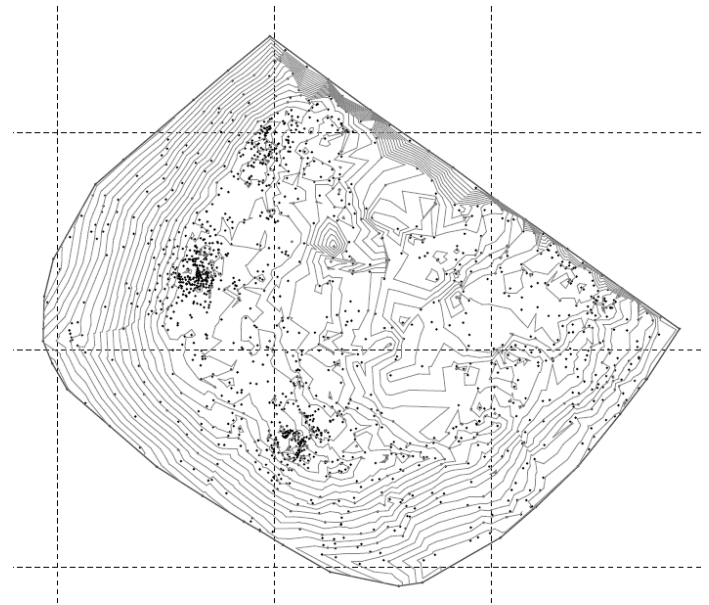
## Technology Applied

### SPECIALIZED VOLUMETRIC SOFTWARE MEETS REQUIREMENTS FOR INVENTORY RECONCILIATION

Employing volumetric software developed for the surveying industry and using data collected with fast scanning profiling systems already used by Dyno Nobel staff has allowed for accurate, timely measurements of stockpiles for this Mid-Atlantic Granite producer at several asphalt and concrete plants as well as quarry locations.

## Results

### CLIENT SATISFACTION AIDS IN BUILDING RELATIONSHIP



The success in providing this value added service to the customer has helped foster an increased involvement between Dyno Nobel and the customer. The ability to adopt existing technology to meet customer needs is critical in today's environment.

## Value Added

### NEW TECHNOLOGY (UNMANNED AERIAL VEHICLE'S, OR UAV'S) WILL CHALLENGE ABILITY TO REMAIN STATE OF THE ART IN THE EYES OF CUSTOMER

The use of UAV's for collecting and analyzing data has already become commonplace around the world. The time savings in data collection are significant and make inventory compliance data collection simple.



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