



Process Improvement For Increased Efficiencies: A Dimension Stone Quarry Case Study

January 2020

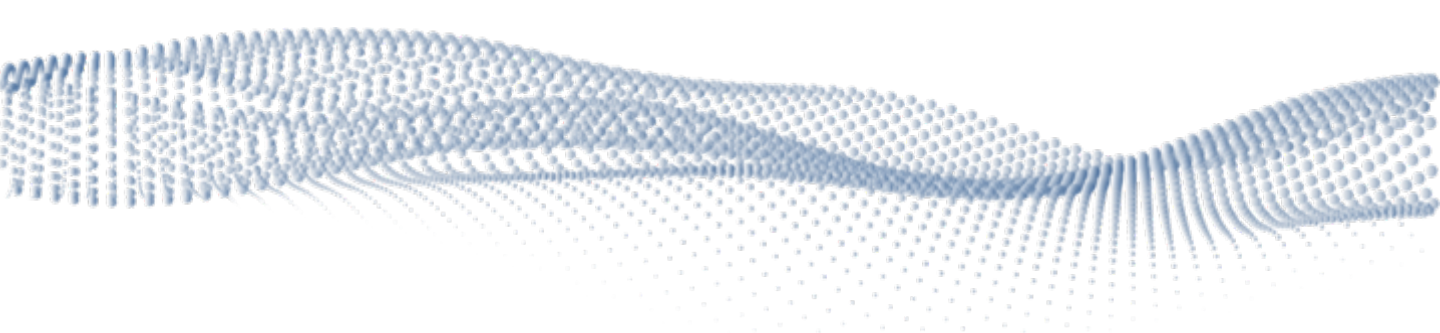


About Kelmic

Kelmic Consulting helps organizations capture opportunities and dramatically improve their operations.

Helping our clients improve their operations since 2002

We partner with our clients to drive bottom-line impact by addressing and dramatically improving efficiencies in People, Processes, and Property. Our exceptional people draw upon more than 100 years of combined experience to bring you the right perspectives and expertise to help you tackle complex challenges and realize your strategic ambitions.





Background

About the Client

- Granite dimension stone quarry and exporter
- Source of high quality fine and medium grain black granite suitable for polishing
- Production of over 18,000 tons per year with over 12,000 tons exported to US and European markets

“More than 85% of incoming sales calls were to complain about shipping delays or schedule a return and replacement block.”

This sizeable exporter of “A Grade” black granite dimension stone was experiencing a significant increase in demand for its products.

Previous mine planning methods had inhibited the quarry’s ability to increase its production by adding additional teams and operations were already running 24/7.

New customer orders were being short supplied – often due to block rejects, many of which could have been identified insitu. Accuracy and depth of drilling was inconsistent.

The skills of the supervisors on site were very poor. There were too few supervisor roles and supervisors spent more than 85% of their time on non-supervisory functions. Many man hours were wasted on managing customer service complaints and coordination of off-loading and reloading of trucks.

Sales forecasts and planning schedules to meet production demand did not exist. Weekly planning was undertaken by the mine manager and was mainly focused on where to mine for best quality granite grade. No reviews of comparison of actual production to weekly plans were performed.

Frustration among the sales, aftersales, and customer service teams had been growing many were on the verge of quitting. More than 85% of incoming sales related calls were to complain about shipping delays or to schedule returns and replacement blocks.

Senior management was predominantly focused on off-site (more than 180 km away) activities at a new finishing facility experiencing start-up challenges.

One major customer was threatening to cancel orders and buy elsewhere.

Implemented Solution

A major restructuring of the organization was undertaken. Additional supervisory roles were created including:

1. A dedicated load and unload function
2. A returns management function to work closely with customer service.

Sales orders were loaded into a basic master schedule and production requirements were properly balanced to crews. Areas where production demand exceeded capacity were flagged and customer service adopted the new practice of proactively calling customers to reschedule shipment dates. Export activities were moved up the priority ladder.

Non-supervisory tasks were removed from the daily responsibilities of field supervisors, allowing them to focus on pre-grading and drilling accuracy.

New simple drill depth measurement tools were introduced which improved depth accuracy by 40% in less than three weeks.

Pre-screening and post extraction, pre-loading screening of blocks reduced the number of re-loaded blocks by 58%.

Reduced re-work eliminated the need for any additional crew members.

Production reporting against schedule was introduced. Throughput increased and sales volume increased by 24%.

Block rejection rate decreased by

16%

Kelmic's implemented solution resulted in sales increase of

24%



Key Results Achieved

- Increased sales volume by over 24%
- Block rejection rates decreased by over 16%
- Drilling efficiency improved sufficiently to alleviate need for any additional temporary crews to meet demand
- Project ROI > 4:1 within 12 months

ROI

4:1

24%

Increase in sales volume

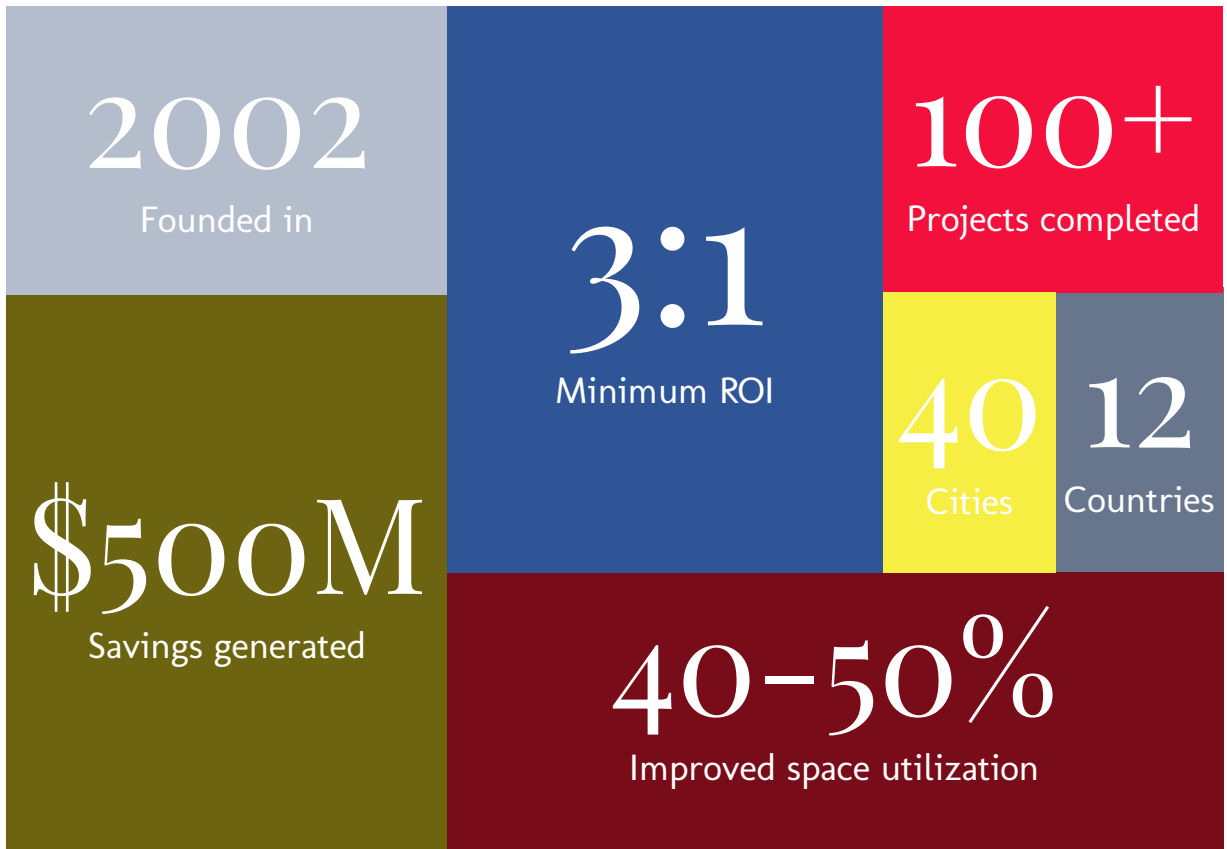
Improved

Drilling techniques and quality

16%

Reduction in block rejection rate

Kelmic at a Glance





January 2020
Copyright © Kelmic Consulting

www.kelmic-consulting.com