

Case Study



Improving Drilling Accuracy

Harnessing Integrated data streams to improve drilling and save money

THE BUSINESS PROBLEM

This diamond mining company experienced fragmentation issues due to poor blasting. The reports they received from the drill rig operators and machines indicated no significant variance from the expected rock factors. Yet, post drilling the company would observe unexpected fragmentation, causing unsafe hang-ups at the face and delays at the tips.

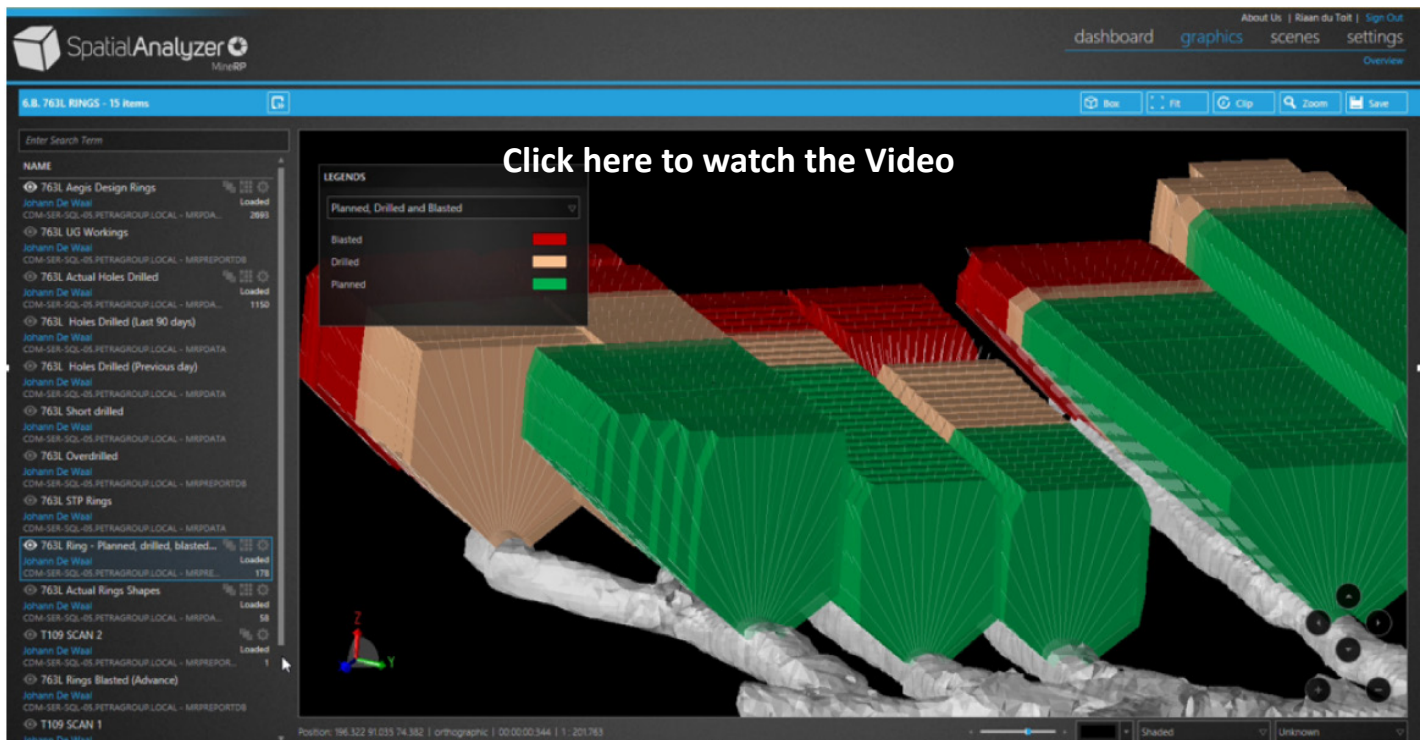
Underground Diamond Mine

+15%

Drilling
Efficiency

-10%

Hoisted
Waste



THE MINERP SOLUTION

MineRP was configured to consume:

- The drill ring designs and schedule to show exactly where operators were supposed to drill to achieve the planned blast shape,
- Drill performance feedback from the Drill Rig's onboard telemetry – including penetration rates and operating time
- Actual hole survey data including depth and directional data

Moreover, MineRP consumed point clouds from volumetric surveys done post blasting.

As can be seen in the video, the mine was able to show:

- Planned holes as well as over- and under-drilling
- Planned ring shapes vs forecasted ring shapes based on the surveyed holes, and
- Actual operator details

THE OUTCOME

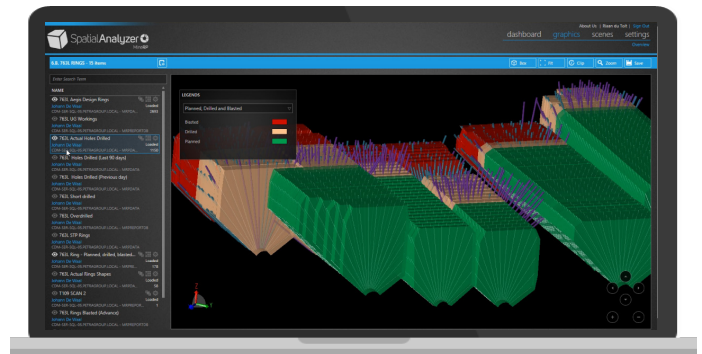
As a result of the spatial integration of data from all these sources, and the simple visualization of these KPIs, the mine initiated a drill-rig operator retraining initiative. Training caused a significant improvement in drilling accuracy and efficiency as soon as operators were able to visualize the outcome of their work, and the working area achieved a 10% improvement in waste tonnes hoisted due to a reduction in overbreak.



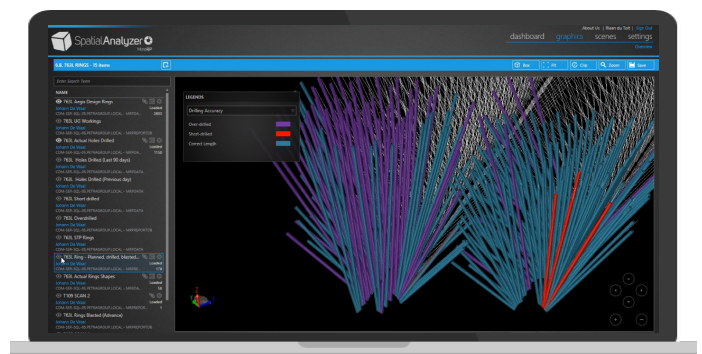
WANT TO KNOW MORE?

Visit our website at www.minerp.com to find out more.

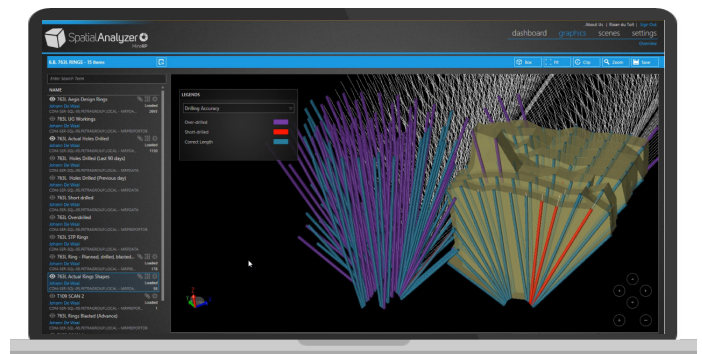
Over Drilling



Drilling Outcomes



Blast Shapes



Drill Hole Properties

