



# TERRAIN FOR DRILLING — IMPROVE DRILLING ACCURACY AND REFINE FUTURE DRILL PLANS

Effective mining starts with accurate drilling. That means drilling every hole precisely to plan, at the proper angle and the correct toe elevation. Cat® MineStar™ Terrain for drilling provides precision guidance that helps operators complete patterns accurately and productively. It pays other dividends, as well, by improving safety, reducing costs and recording data about drilled stratification to aid in planning blasts and improving fragmentation.



## Benefits

- Maximizes blasting effectiveness by allowing operators to execute patterns more accurately.
- Increases hole placement and angle accuracy.
- Reduces over- and under-drilling of holes on a pattern by drilling to a precise elevation rather than a depth.
- Improves production efficiency and reduces the amount of survey work by creating hole locations through digital drill plans.
- Offers a scalable solution for multiple drill size classes and drilling applications.
- Enables monitoring of drilled hole quality, operator proficiency, productivity and machine utilization for optimized production.
- Enhances safety by enabling avoidance zones in hazardous areas.
- Controls operational costs by helping mines achieve proper fragmentation with less explosive material and better knowledge of rock hardness and strata structure.
- Shares data with other drills on the location depth and current status of each hole.
- Tracks drill consumables for economical planned replacement based on actual usage.
- Alerts operators to existing bootlegs and pipe-in-hole propel engagement.
- Communicates seamlessly with Cat MineStar and other mine management systems.
- Provides live strata information to the operator and sends the information to the office.
- Provides robust reporting that outlines drill productivity, availability, utilization, and compliance to plan.
- Maintains a large database of bootleg locations (areas that may contain unexploded blasting agents and initiators) for safer and easier drilling.
- Increases blast safety and control of fragmentation and optimizes both by providing relative rock hardness and structure by selected interval as calculated from Measured While Drilling (MWD) data.

## Differentiators

- Largest range of models, including competitive OEMs
- Increases drilling to plan accuracy
- Drill tool monitoring
- Measured While Drilling (MWD) performance and strata information
- Integrates with MineStar ecosystem

## Success Stories

- 5.9% reduction in total drilled meters per year (~\$1.52M savings)
- Over 1,200 total drill hour reduction (~\$200K savings)
- Reduced total drilled meters led to a reduction in consumables (~\$210K savings)
- Downstream improvements led to a 5% increase in rope shovel bucket fill factor (~\$550K savings)

For more information, visit [www.cat.com/terrainfordrilling](http://www.cat.com/terrainfordrilling) or contact your local dealer.