South32 Hermosa Creating the Mine of the Future & Using MVS for Digital Geology Data Capture



At a glance

South32 uses FaceCapture in its Hermosa Mine, an underground zinc mine currently in development in Arizona, to implement a fully digital, data-driven workflow, resulting in optimized planning for the outset of the mine.

At Hermosa, our intention is to develop the digital mine of the future. MVS is a strategic partner in this vision, enabling us to open this mine with the most precise geologic understanding possible.

- Kenneth Dresang Geology Superintendent





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CHALLENGES



- Early mine development, limited existing information and mapping
- Shaft scanning challenged by wet conditions
- Limited survey frequency in development headings
- Need to stay up to date with georeferenced geology data
- Requirement for structural projection ahead of development

SOLUTIONS



- Implemented FaceCapture in 2024
- Tracked meters of advance and compliance to plan
- Fully digital geologic data collection
- Linked digital development data with modeling platforms
- Continuous 3D model updates to improve geologic understanding



Early geologic modeling



Optimized planning



Improved development efficiency

BENEFITS



- Faster and more consistent development mapping
- Improved planning for decline and shaft advancement
- Provides georeferenced 3D face positioning against the development plan, enhancing spatial accuracy between survey pickups
- Builds a more accurate foundation for geologic and structural modeling as the mine advances toward production