

Cavity Auto-Scanning Laser System (C-ALS) Void Scanner

Mining

The team at Mine Survey Plus has over 25 years of mine surveying experience across a range of commodities and mining systems, worldwide. Our guiding principles are customer service, quality staff and delivering results to the highest standard.

We have recently added a Cavity Auto-Scanning Laser System (C-ALS) to our list of services.

The C-ALS is a specialist cavity measurement system that enables mapping of inaccessible voids, safely, quickly, and reliably via production drill holes.

The Mine Survey Plus C-ALS unit is fitted with a miniaturised MEMS IMU which contains a 3-axis gyro. This allows for heading, tilt and distance measurements in the borehole which helps to better determine the position of the scanned data when compared to older C-ALS units.

With a diameter of just 50 mm, the C-ALS cavity monitoring system is easily deployed downhole or uphole through boreholes to survey hazardous voids or stopes that a traditional cavity scanner cannot access.

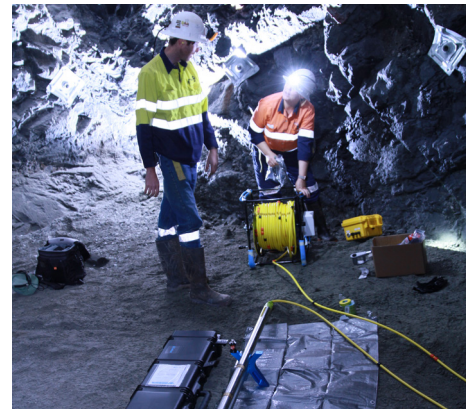
A nosecone camera gives full visibility of the borehole during deployment, so operators can see any obstructions, and judge when the C-ALS has entered the void.



Once in the void it is capable of measuring the three-dimensional shape of the void with full 360° coverage with a range of up to 150 metres. All points collected are displayed in real-time in 3D view with the option of including existing models or data sets on-screen during collection.

Applications where C-ALS provides data when manned entry may not be possible:

- sub-surface voids and cavities
- undercrofts
- underground chambers and tanks
- duct surveys
- inaccessible roof spaces
- subsidence investigations
- collapsed mine workings
- culverts
- shafts and bunkers
- underground caverns
- industrial production facilities where access is limited or unsafe



A variety of export formats are available after post processing including DXF, ASC/XYZ, OMF, OBJ plus the output of deployment path data (borehole tracking).