Stockpile Measurement - Drone and 3D Laser Surveys

Knowing exactly how much material you have on the ground is critical – for planning, reporting and audit. OR3D GEO's drone and LiDAR stockpile measurement service delivers reliable volumes and tonnages for your bulk materials, without the need to put people on stockpiles or disrupt operations.

At a glance

- **Technology**: UAV/drone and LiDAR-based stockpile surveys .

- **Outputs**: Volumes (m³), tonnages (where density provided), PDF and Excel reports.

- **Accuracy**: Survey-grade 3D data and clearly stated methodology.

- **Coverage**: Single sites or multi-site portfolios.

- **Service** : One-off checks or regular monitoring programmes.

Stockpile Volume 29.25m³

Ideal for

- Aggregates and quarries
- Mining and minerals
- Biomass and energy facilities
- Ports and bulk terminals
- Waste and recycling sites
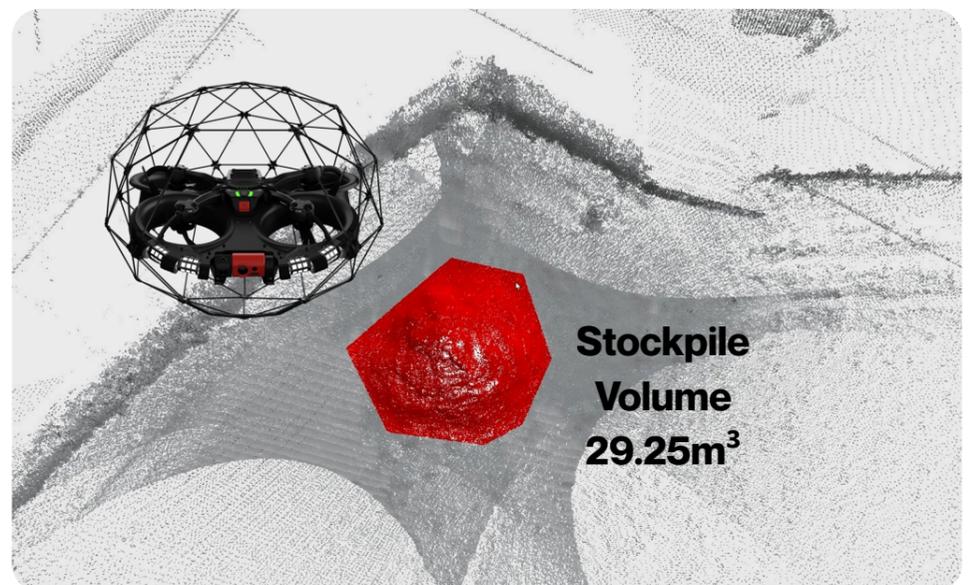
Key Benefits

- **Improved safety –** drone-based capture minimises exposure to stockpiles and live plant movements.

- **Reliable numbers –** survey-grade 3D data and consistent workflows provide accurate volume calculations.

- **Faster surveys –** large areas can be captured fast and efficiently from the air.
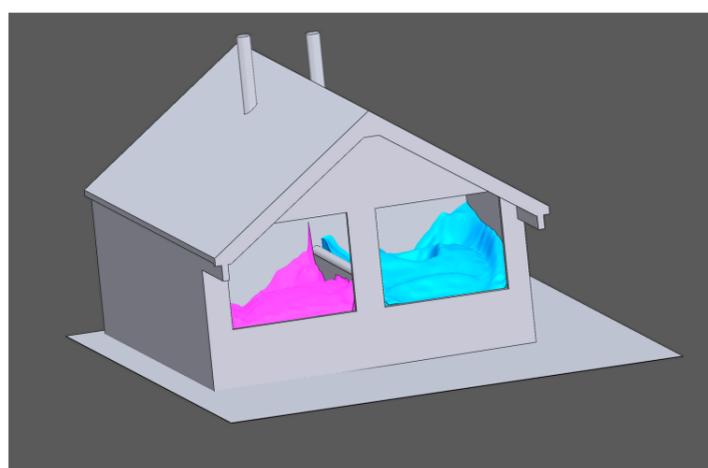
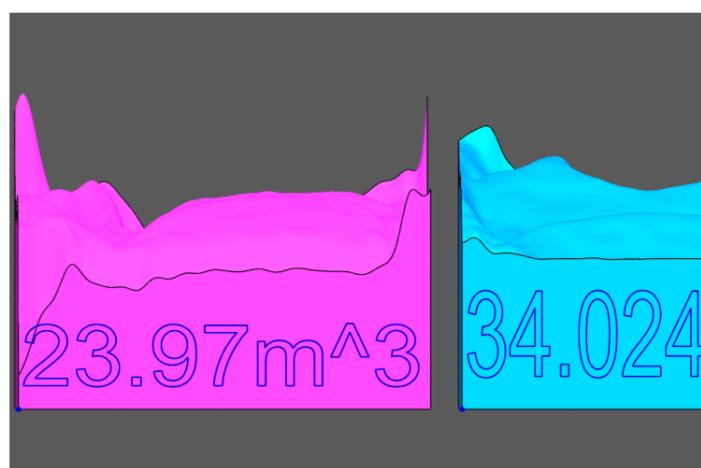OR3D geo

Visual Workflow
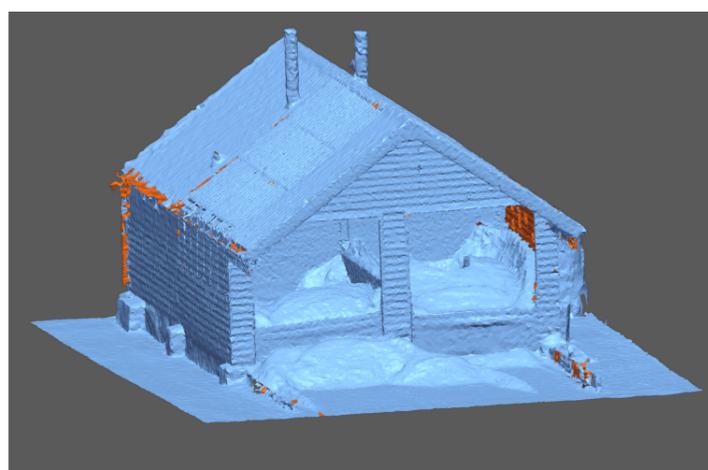
Capture - Detailed 3D Scan
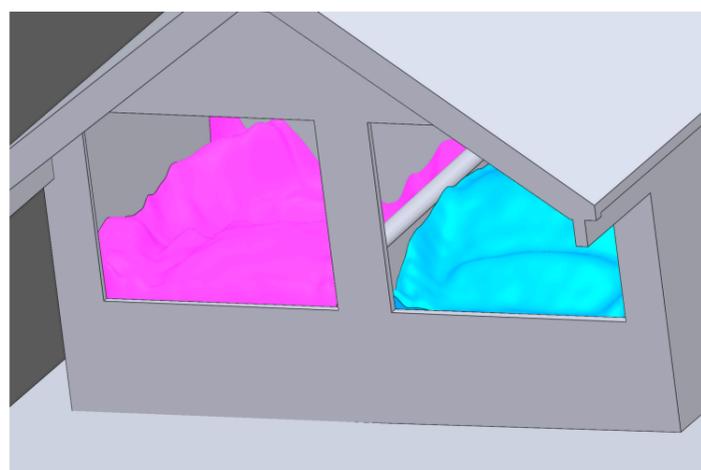
Analyse - Bay Fill

Model - Separate Structure from Stockpile.

Report - exact room by room bays.

How It Works

Remote data capture

Our surveyors plan and fly your site with drone and LiDAR technology, capturing high-resolution 3D data over all relevant stockpiles and surrounding ground. Surveys are designed to minimise disruption and can often be carried out while operations continue.

Service Options

- **One-off surveys –** ideal for year-end stock checks, audits or project milestones.
- **Regular monitoring –** monthly, quarterly or custom schedules to track stock levels over time and reconcile movements.
- **Multi-site programmes –** consistent methodology applied across your portfolio for better comparability and reporting.