



# Cavities Database

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Our Cavities Database and services can be scaled to the level of detail you need. Whether that's a factual search within a defined radius or a Cavities Occurrence Assessment interpreting the key geological, hydrogeological, and geomorphological factors that pertain to cavity development. We can also enhance our assessments by incorporating your site's ground investigation data, or by reviewing pre-digital, archive sources. All necessary layers of detail can be digitally combined to produce a site-specific geographic information system (GIS) hazard analysis map.



# Let us help you choose which level of data source is right for your project

## **Factual Database Search Report**

Overview of recorded natural and non-coal mining cavities within a defined radius of a site location. Details the NGR and distance/direction from the site, geology, address, number, type of cavity and data source. Bespoke data sets supplied for large or linear sites. GIS data sets available under licence.

## **Standard Cavities Occurrence Assessment (COA) Report**

An interpretative assessment of the potential for cavity occurrence starts with reviewing desk-study based geological, hydrogeological, and geomorphological data. Site historical maps are also viewed if available. The potential for natural cavities and mining cavities is assessed as a hazard rating (low to very high) based on the Dr C Edmonds Subsidence Hazard Mapping formula with recommendations for follow-on investigations or remedial measures.

## **Extended Cavities Occurrence Assessment (Ext COA) Report**

**Option 1)** With ground investigation data, we can enhance our understanding of the ground conditions at your site to provide a more detailed, site-specific hazard assessment.

**Option 2)** Undertaking historical archival research involves visiting the records office or local studies library to undertake a review of historical documents that mostly pre-date the published OS maps. This option is particularly relevant to establish the subsidence risk level for sites that are potentially underlain by historical mine workings.

**Option 3)** Stantec's specialised Geohazards team can undertake geomorphological surveys of a site to identify ground conditions indicative of natural/mining features that desk-study based material can often overlook. Enhancing our desk-study based findings, the mapping results can be digitised and analysed in GIS to produce natural and mining hazard maps. These can be applied to large development sites, infrastructure corridors, and regional land use planning.

