BEST PRACTICE

LOCATION:	**Quarry**	**ARTICLE YEAR**	**2013**
ACTIVITY:	**Access & Egress & Working at Height**	**COMPANY:**	**QuarryDesign Ltd**
SUB ACTIVITY:	**N/A**	**COMPANY LOCATION:**	**TLA and UAV Remote Geological Surveying**
BEST PRACTICE No:	**BP863**	**COMPANY TEL:**	**0121 288 3228**
COUNTRY OF ORIGIN:	**United Kingdom**		

TITLE

Remote geotechnical mapping using long-range terrestrial LiDAR and UAV

ARTICLE

DESCRIPTION

Quarries regulations require excavations to be assessed, designed and monitored. In some quarries, the acquisition of reliable geotechnical data may be difficult to obtain safely. If safe access is limited to a few locations in the quarry, the quality of the geological assessment and the subsequent analysis /modelling can also be compromised.

To address this issue, after extensive research, QuarryDesign Ltd invested in a long-range LiDAR scanner and software that extrapolates discontinuity data, produces high quality cross sections and measures lateral displacement between successive scans. The data is further enhanced by using an Unmanned Aerial Vehicle (UAV) fitted with a camera and integrating the images with information from the LiDAR survey.

Please see PDF for more detailed information

BENEFITS

- Geologists can collect data safely from the periphery of the quarry
- No longer exposed to potential hazards from rock fall, slips and trips
- Greatly reduced the time that the geologist / geotechnical engineer spends in the quarry
- Discontinuity data can be safely collected for all parts of the quarry
- Quality of data enables a wide variety of geological and geotechnical data to be extrapolated

ARTICLE IMAGES

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