

Products & Services Application Suitability

Rock Stress Testing (Foundation Rock Testing)

The design of pile foundations depends on several factors such as the type and size of the structure, the soil and groundwater conditions, the load and settlement requirements, and the environmental and economic constraints.

The main objectives of the design are to ensure the safety and serviceability of the structure and to optimise the use of materials and resources. Some design methods include empirical formulas, analytical solutions, numerical models and load tests.

Excelsior Energy can perform Rock Stress Testing in the form of Diagnostic Fracture Injection Testing (DFIT). Hydraulic Fracture Analysis is one of the few reliable test methodologies suitable for observation boreholes deeper than 50 meters.

Testing takes place over the course of several hours depending on depth and rig capability, with results available immediately following test completion. These test results will be analysed by the infield or desktop Civil Engineer to make immediate informed adjustments to the foundation design before the borehole is grouted and finalised.

