

Wetherhill Wind Farm Ground Investigations

Client :
Scottish Power

Location :
Scotland

Date :
2005



BAM Ritchies carried out a ground investigation for a Wind Farm comprising fourteen turbine locations together with a number of borrow pit locations and associated access roads and cable routes. The investigation consisted of machine dug trial pits, rotary coring and peat probing using Mackintosh Probe equipment. Locations were initially sited using hand held GPS instruments. Plastic liners were inserted into the rotary boreholes so that down the hole seismic testing could be undertaken at a later date.

An excavator was used where required to form access routes and to pull plant into position. Bog mats were required in some locations to support vehicles when tracking to locations or to form a stable working platform. The plant consisted of hydraulic top drive rotary drilling rigs utilising either compressed air or water as the flushing medium.

Ground conditions at the site dictated the use of low ground pressure plant and equipment. Consequently, the rigs were mounted upon low ground pressure tracked carrier vehicles. Similarly, low ground pressure vehicles were used to transport compressors, pumps and other ancillary tools and equipment.

Trial pitting was carried out using low ground pressure tracked 360 degree hydraulic excavators under the supervision of BAM Ritchies' geologist. Mackintosh probing equipment was utilised for peat probing with all probes being taken to refusal by pushing into the ground by hand. During drilling, groundwater strikes were recorded, as were levels at the start and finish of each working day.