

## CASE STUDY

# Intrusive ground investigation, Anderby Creek, UK



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### Background

RWE Npower Renewables asked Structural Soils, an RSK company, to carry out an intrusive ground investigation and laboratory testing on the coast at Anderby Creek, 15 km north of Skegness in Lincolnshire, UK. The work aimed to investigate ground conditions and provide information on the thermal properties at two locations within the intertidal zone to the northeast and the southwest of Anderby Creek. These locations were prospective landing sites for electricity cables from the Triton Knoll offshore wind farm.

### Services provided

The work included two cable percussive boreholes drilled to 10.5 m in sand and underlying clay. They were drilled at low tide in an intertidal area of the beach close to the high-water mark. Standard penetration tests were carried out at regular intervals on the granular materials in the boreholes, and 100-mm diameter undisturbed samples were recovered from the cohesive strata in the boreholes.

The thermal properties of 11 soil samples were determined at Structural Soils' laboratory in Bristol. All the samples had their bulk and dry density, thermal conductivity, thermal resistivity and soil temperature assessed and nine of the samples had their specific heat measured.

Before starting the exploratory holes and intrusive tests, Structural Soils carried out cable avoidance tool and genny scans. Inspection pits were also hand dug to 1.2 m at the exploratory hole locations.

Even though the work took place on a beach, no water was encountered. However, water was added to progress both boreholes through the sand forming the beach.

Owing to the site's location, Structural Soils had to consider the ground conditions over which it would be transporting kit and drilling into. Consequently, a tractor and a large earthmoving machine towed the rig over the very soft sand on the dunes and the beach.



For further information, please contact:

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