

Case Study

PAGECROFT WATER PUMPING STATION, NORTHUMBERLAND

Client: Northumbrian Water

Consultant: MWH

Main Contractor and Anchor Installer: [Lumsden & Carroll Ltd](#)

PROJECT SPECIFICATION

This existing embankment needed to be cut back to provide space to construct an additional valve chamber on site. Due to the close proximity of a sandstone rock head the sheet pile supports were unable to be driven to the required depth to provide adequate cantilever support.

SOLUTION

The excavation was phased with anchors being installed through the piles at 1.8m centres, to a depth of 6m at 20° below the horizontal. Each anchor was terminated against a waling beam to ensure an even spread of load. Once secure, excavation continued and the process was repeated. Whilst originally designed as a temporary solution the anchored sheet piles then provided external shuttering to cast the rear concrete wall of the chamber, leaving everything insitu.

Anchor System: B06TC spheroidal graphite cast iron anchor c/w 7m of 12mm Ø galvanised steel wire tendon, 150mm x 150mm galvanised steel load plate & 12mm galvanised steel wedge grip.

Quantity: 21 **Anchor Design Life:** 10 yrs **Soil Type:** Brown clayey sandy gravel

