

Welford Quarry - Site Reclamation

Location: Northamptonshire
Former Use: Quarry
Client: Tarmac Quarry Products
Value: £900,000

Welford Quarry was a sand and gravel pit excavated over many years by a national minerals supplier. The construction of the main east to west road artery (A14) in the early 90's caused the site to be cut in two and partially infilled in a haphazard manner with excavated materials from the road construction. The site was burdened with restoration requirements under the site's planning consent which provided outline permission for a motorway service area type development.

Provectus evaluated the site and entered into the project in a joint venture approach with the site owners. A detailed geoenvironmental site investigation revealed that the fills that had been previously tipped were variable in nature and displayed elevated methane gas readings indicating that the tipping of biodegradable materials had taken place. Additionally the fills were at levels below which

site development could take place and environmental constraints were placed on the site development by the existence of protected species (great crested newts) in several locations. Provectus devised a remediation strategy that involved ground improvement and land raising using on-site materials and by the importation of inert materials.

Provectus carried out remedial works on the previously tipped materials by creating a development mat using dynamic compaction techniques across the 11 acre site. This produced an improved crust some 4 to 5 m thick upon which controlled, selected and compacted fills were allowed into the site under an exemption from a waste management licence. The importation of the selected fills permitted development levels to be achieved for the proposed motorway service area facilities.

Provectus carried out all negotiations with the relevant authorities particularly with respect to dealing with environmental matters and the creation of a settling lagoon for site drainage prior to entry into an adjacent brook. Provectus also supervised the engineering works of the dynamic compaction and controlled fill compaction to a DOT compaction specification. Provectus produced the Validation Report which was vital to the sale of the site including evaluation of abnormal development costs.

