



Franklaw WTW, Catterall, Preston

December 2002

Framework Contractor: HMB Alliance

HMB Alliance is currently building Franklaw interstage pumping station at Catterall, nr Preston for United Utilities. Systems Geotechnique initially received an enquiry to install 50No rock anchorages to resist buoyancy uplift on the base slab of the pumping station shaft, but after discussions with the engineer Carl Bro, an alternative SGL designed, more cost effective double corrosion protected tension pile system was adopted. Drilling the piles was carried out by a KR701 restricted access drilling rig using rotary water flush methods, from the bottom of the pump shaft some 8m below ground level. All the 200mm dia. piles had to resist a 500kN tension load and were drilled 6m through clay and 6m into the sandstone bedrock. After reaching the required depth, a 50mm sheathed GEWI Bar was installed and the pile grouted using a high strength grout. Works were completed with 3No. piles tested successfully using modified on site acceptance testing procedures in January, to the satisfaction of the client.