

Drilling and Grouting, Kenton Bankfoot Phase 4



AARSLEFF

In December 2018, Aarsleff Ground Engineering were appointed by Taylor Wimpey North East to undertake the treatment of shallow mine workings beneath a previous greenfield site located in Kenton Bankfoot, Newcastle upon Tyne. The housing development makes up a wider Newcastle City Council plan to build around 800 homes in the Kenton Bankfoot area. The 10-week contract included 20 probe holes to a depth of c.42m in the early stages of the project to gain an initial understanding of the ground conditions prior to targeting specific areas beneath the proposed building footprints and roads. The site was divided into 5 strategic areas for treatment and drilled on both a 4.25m and 6m grid due to lateral variations in coal workings. The main works included 606 treatment holes

drilled to the base of the High Main Seam at c.38m and was carried out using 5 rigs: 2x Boart-Longyear's, 1 x Klemm 806-3G, 1 x Klemm 909 and 1 x 26 tonne Volvo JCB excavator. The total grout injected into the coal workings was 1000 tonnes using a comprised mixture of 10:1 Pulverised Fly Ash (PFA), a bi product from coal fired power stations and Ordinary Portland Cement (OPC). Continuous gas monitoring data was undertaken for CO₂, H₂S, CH₄ and CO at each rig location and no unusual concentrations were recorded throughout the works. Further challenges included battling the northeast winter weather, however the project was delivered on time and budget to the delight of our client.

Aarsleff Ground Engineering Ltd, is the UK trading arm of Danish contracting giant Per Aarsleff A/S, and is one of the UK's leading piling and geotechnical design and installation specialist contractors; actively promoting early consultation to ensure each scheme

can be Value Engineered to give clients the best service, quality design, safety and value. Aarsleff's strategy and philosophy of investment into the future has resulted in its wholly owned subsidiary Centrum Pile Ltd having the most advanced precast pile production facilities in

Contact

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**Scope of Works**

1000T Grout
606No. holes

Client

Taylor Wimpey

Equipment

X2 Boart Long-Years
Klemm 806-3G
Klemm 909
26T Volvo JCB Excavator with Rotary-Head
20T Bulk-Mixer

Construction period

7th January 2019 - 15th February 2019

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Contact

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