Sabic A1 TPEP Diversion

client	|	Geotechnix/Murphy
project	|	Sabic A1 TPEP Diversion
date	|	August 2009
pipe	|	8" steel gas main
length	|	480m
location	|	Leeming Bar A1 Dishforth-Barton
geology	|	Clay/Gravel
drill	|	American Augers DD-8

Scope | This project was part of the £318m major upgrade of the A1 from Dishforth to Barton in North Yorkshire. The purpose of the HDD was to divert the Sabic owned Trans Pennine Ethylene Pipeline (TPEP) as part of the preparatory works for the new A1 (M). The TPEP pipeline runs from Wilton in Teeside to Runcorn in Merseyside.

Preparation | The set up on the launch site (pictured left) required the construction of a concrete anchor/thrust block.

Pilot Bore | The pilot bore was completed in one day covering a distance of 480m: crossing the A1 carriageway, a side road and continuing through a farm until it's termination in agricultural land adjacent to the proposed connection location.

Recycling | McCormack Drilling used their American Augers MCM 2000 fluid recycler on this project. Drill fluid was transported via tractor and bowser from the exit site to the recycler. Ground conditions varied from clay to a gravel formation nearer the exit site. The fluid mix reflecting that transition through monitoring and testing.

Pre Reaming | The pre reamed hole diameter required prior to insertion of the product was calculated to be 300mm (12"). With a 125mm (5") hole already created by the pilot bore, the first pre ream was 200mm (8") followed by a second ream of 300mm (12") and finally a swab of 300mm (pictured left) with a barrel reamer.

Installation | The pipe was hoisted into position (pictured left) using 360° excavators fitted with specialist low friction rollers to enable the smooth insertion of the 8" steel pipe. Once the pipe was aligned and connected, the final pullback stage of the A1 Sabic TPEP Diversion was initiated and finished in 7hrs completing one part of the large A1 civil engineering project.

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