

## ENGINEERING THAT WORKS FOR YOU

### Main Drainage Trunk Mains Cleaning

Contract	Value	Location
54 Weeks	£15m	North East

#### Client

Northumbrian Water

Abbey Road

Pity Me

Durham



### Project Description:

Northumbrian Water has invested £66 million in the North East to clean and upgrade the trunk water mains and improve water quality for one million customers in Gateshead, Newcastle upon Tyne, Northumberland and North Tyneside.

Over a period of time, harmless sediment can build up on the inside of water mains and may result in discoloured water. Although discoloured water is not harmful to health, it is not acceptable or pleasant.

To reduce the likelihood of discoloured water, Northumbrian Water instructed Seymour to carry out a major programme of work to clean and upgrade the trunk water mains. These are the large diameter pipes which transfer water around the region.

To deliver the programme of works Seymour utilised two techniques to clean the pipes. Ice Pigging and Typhoon Jetting.

Using the Ice Pigging technique, a section of pipe is isolated by turning off valves at each end of the length of pipe to be cleaned. A bit of water is emptied out to make room for slushy ice which is injected into the pipe. The valves are then reopened enabling the water to start flowing again. The pressure of water on either side of the slush compacts the ice and it scrapes the sediment off the pipe walls. The dirty ice is then flushed from the water pipe and the water is sampled and put back into supply.

Using ice is much quicker as we don't have to empty the section of pipe we are cleaning, and refill it, as with other cleaning methods. The holes we dig to access water pipes, to enable the cleaning, are much smaller. Both of these benefits result in less disruption to our customers.

It usually takes us up to three weeks to clean a two-kilometre section of pipe using 'pressure jetting', it takes just a few hours to clean the same amount of pipe using ice. As well as being more cost effective, the process also uses less water than other types of cleaning so it is more environmentally friendly.

