

TACKLING WATER LOSS WITH BRISTOL WATER



INTRODUCTION

Bristol Water team, working with RPS, were tasked with identifying the source of water loss in the Beverston area of Bristol. The survey was carried out over approximately 4000 metres of rural cast iron mains, with only 70 properties making it difficult due to length of main between fittings and difficult to find stop taps and meters. The nightline before the survey was 4000 l/h.

THE CHALLENGE

Standard leak detection methods had been unsuccessful in the district before carrying out the Enigma survey. Enigma was chosen due to the difficulty experienced with radio signal over the long distances, the surrounding speed limit being 60mph making the environment unsafe for technicians to be at the roadside for long periods and having to continuously move the sensors to ensure coverage.

The loggers were put out throughout the day, collected, analysed and followed up the day after. The use of Ovarro's remote correlator, the Enigma, proved to be a key factor in the safe, reliable location of these hard to find pipe breaches.



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WATER



MONITORING
& CONTROL



LEAK NOISE LOGGERS
& CORRELATORS



RESULTS

The correlation results showed a leak over a distance of 1458 metres on a private pipeline supplying a farm. This was subsequently validated as a 1200 l/h water loss. A second leak on the A413 was located over a distance of 541 metres. This was filtered at two different frequency bands to reduce pump noise. This leak has been confirmed as 1000 l/h water loss.

Total water loss reduction after identifying and fixing these leaks has been from 4000 l/h down to a little under 2000 l/h.



“The Enigma has proven an indispensable part of our toolkit. It’s found our needle in a haystack!”

Gareth Ingram, Leak Technician, RPS



KEY DELIVERABLES

- Increased situational awareness
- Improved operational efficiency
- Water loss reduction of 2000 l/h
- Delivered cost savings
- Reduced manpower

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