

Eliminating cryptosporidium in water mains with Ice Pigging™ technology



By partnering with SUEZ, exclusive providers of the innovative Ice Pigging™ technology, South West Water resolved cryptosporidium contamination in its water mains.

THE MISSION

Swiftly address cryptosporidium contamination in water mains to protect public health.

South West Water detected a cryptosporidium outbreak in Devon. Following detection, South West Water undertook intensive flushing and cleaning of the service reservoirs and mains but this did not fully remove the contamination, prompting them to use SUEZ's specialised Ice Pigging technology.

OUR SOLUTION

Ice Pigging technology deployed to efficiently remove cryptosporidium from water mains.

Within 36 hours of being contacted, SUEZ mobilised and collaborated with South West Water's response team to implement Ice Pigging, a highly effective pipe-cleaning method using a unique ice and liquid slurry. This ice slurry, pumped into pipes through fire hydrants or similar fittings, forms a semi-solid plug that effectively navigates complex networks, such as multiple bends and diameter changes, scouring sediment and contaminants from pipe walls.

SUEZ, the patent holder and sole provider of Ice Pigging, successfully and safely removed residual cryptosporidium in initial operations and South West Water extended the cleaning activity to the wider water supply zone.

OUR SOLUTION [CONT'D]

Within 48 hours, while initial operations were already underway, nearly 100 further Ice Pigging operations were planned, covering several thousand metres of pipework. The remote locations posed access challenges, but Ice Pigging's flexibility allowed for the use of smaller seven-metre tankers to transport ice from larger units stationed at accessible points.

Over the course of 20 operational visits, 98 Ice Pigging operations cleaned over 45,000 metres of pipe. This work was strategically scheduled at night to minimise disruption to water services. The intense programme's success hinged on close collaboration between South West Water, SUEZ, and KIER.

THE RESULTS

Ice Pigging effectively removed residual cryptosporidium

SUEZ's Ice Pigging technology proved highly effective in removing the cryptosporidium contamination from the water mains, combined with other measures implemented by South West Water including mains replacement as well as the installation of microfilters and UV treatment systems.

SUEZ was selected due to the speed and efficiency with which Ice Pigging could be deployed, the technology's proven effectiveness in removing contaminants, and its adaptability to the unique challenges of the affected area.

98

**ICE PIGGING
OPERATIONS
PERFORMED**

20

**OPERATIONAL
VISITS**

45,039

**METRES OF PIPE
CLEANED**

