



**Abbott**  
Diagnostics

# new Purite RO plant boosts

water resilience for clinical analysers at QEUH Glasgow



# new Purite RO plant boosts

## water resilience for clinical analysers at QEUH Glasgow

### improving the resilience of purified water

A new reverse osmosis water purification plant, manufactured and installed by Purite, is helping the Pathology Department at the Queen Elizabeth University Hospital in Glasgow improve the resilience of its purified water supply for vital Biochemistry, Histopathology and Cytopathology services.

The Pathology Department is part of NHS Greater Glasgow and Clyde, which is one of the UK's largest providers of NHS healthcare in acute, primary and community health, mental health, addiction and homelessness services. The Trust operates from three primary sites in Glasgow, including the Queen Elizabeth University Hospital (QEUH) campus, which is one of the largest hospital sites in the country.

▶ **A reliable purified water supply is critical to the successful operation of the department**



# new Purite RO plant boosts

## water resilience for clinical analysers at QEUH Glasgow



The Pathology Department is based in a purpose built laboratory complex and operates 24/7, 365 days a year, via a managed service contract with Abbott Diagnostics. The department provides a comprehensive range of Histopathology and Cytopathology services, including Paediatric and Neuropathology, and processes over 100,000 biochemistry and histopathology requests and a further 20,000 non-gynaecological cytopathology requests every year.

A reliable purified water supply is critical to the successful operation of the department, which uses a large number of Abbott blood chemistry analysers to process up to 5,000 blood serum or plasma samples a day, with each sample being tested for up to 50 different parameters.

John Allison, head of biochemistry at QEUH explains, "We need a supply of at least 500l/hour of purified water to be able to operate successfully. With the importance and intensity of our work, which has increased significantly during the Covid pandemic, and the fact that we operate 24 hours a day, we rely totally on the reliability of the purified water supply."

The Pathology Department had previously been supplied from an older water purification system, which

comprised five separate RO units, each with a small internal storage tank. This configuration had been prone to technical problems and, even when operating to its full capacity, was only capable of providing a safe buffer supply of purified water for up to four hours.

"As part of our ongoing investment programme we realised that we needed a far more resilient and reliable solution," says Steve Hopkins of Abbott. "We chose to work with SUEZ based on our previous experience with them, their reputation for reliability and the quality of their engineering and technical support teams."



# new Purite RO plant boosts

## water resilience for clinical analysers at QEUH Glasgow



The new Purite system uses an existing raw water supply; due to the nature of the local geology this is already softened, so there is no need to adjust the hardness before the water is subsequently purified. The supply feeds directly into a 2,000l raw water break tank, from where it is pumped through an automatically back-washable carbon filter, via a series of 5-micron filters into two Purite Elite 500 reverse osmosis units, providing duty/standby capability.

From here, the purified water is held in a 4,000l storage tank, before being pumped through twin deionising cylinders in series, an in-line UV disinfectant and then 0.2-micron filters and into the distribution pipework.

The entire system has been constructed within a purpose-built mild-steel enclosure in the Pathology Department plant room.

All power and data cabling is separated to eliminate the risk of electromagnetic interference and to simplify maintenance, with a dedicated colour touch screen controller and remote mimic panel in the laboratory area.

# new Purite RO plant boosts

## water resilience for clinical analysers at QEUH Glasgow



John Allison adds, "The new water purification plant has dramatically increased our water resilience, giving us a supply buffer of at least 12 hours, and has given us an improved quality and consistency of supply. Perhaps as importantly, the design of the new system makes it easy to control, access and maintain, while the use of duplex pumps, membranes and cylinders throughout provides a high degree of security in the event of a problem occurring."

The role of the Pathology Department at QEUH is likely to expand further, as pressure on the healthcare services in the Glasgow and Clyde region grows. The new Purite system has been designed to facilitate future growth, with sufficient redundancy to meet current needs, plus a modular construction that will allow it to be easily upgraded if required in the future.

► **We chose to work with Purite based on our previous experience with them, their reputation for reliability and the quality of their engineering and technical support teams**

### Contact



### Contact

SUEZ Water Purification Systems Ltd trading as Purite  
Bandet Way, Thame, Oxfordshire  
OX9 3SJ, United Kingdom

T +44(0)1844 217141

E [mail.waterpurificationsystems.uk@suez.com](mailto:mail.waterpurificationsystems.uk@suez.com)

W [purite.com](http://purite.com)