

TREATMENT OF HEAVY METALS IN GROUNDWATER AT A HISTORIC SITE

Washington, DC



Griffin must treat dewatering effluent to meet DOE standards, at Historical Landmark Site.

THE CHALLENGE

The design and construction of a utility plant was undertaken as part of a larger redevelopment of the historic 300-acre site in Washington D.C. where sixty-two (62) of the seventy (70) previously existing buildings are identified as National Historical Landmarks.

The facility is a three-story below-grade structure designed to contain equipment and systems to power a portion of the planned campus. Hydrogeological data of the site indicated the presence of two zones of groundwater beneath the specific project location- a shallow groundwater level in the Stratum A1 FILL (13.1 ft. below ground surface), and a separate zone in the soils at 81.5 ft. below ground surface.

THE SOLUTION

Laboratory testing of groundwater samples indicated groundwater contamination. The discharge permit obtained for this project required the dewatering effluent to meet all standards set by The Department of Energy and Environment (DOEE). Griffin was selected by the contractor to perform dewatering and treatment services for this site. The treatment methodology applied by Griffin reduced copper, chromium, iron, lead, nickel and zinc contamination to well below permitted levels.

Griffin installed and hydro-tested the treatment system, and provided 24/7 operators, to ensure seamless operation during the six (6) month project. The treated water was comprehensively lab tested to ensure early detection of any media breakthrough, as well as to prevent any out of compliance discharges. Regular monitoring and preventive maintenance were conducted to ensure optimal system performance.

THE GRIFFIN DIFFERENCE

Griffin's equipment is configured to work with various access and topographical limitations onsite and is designed using multiple sampling ports throughout the treatment system to aid sampling and monitoring. Griffin provided thoroughly trained in-house treatment system operators on duty 24x7 for seamless operation. Griffin operators provided comprehensive maintenance and testing to ensure optimal performance of the 70gpm treatment system for the entire life of the project (6 months).