

# Redline Pipeline Colorado

May 12, 2023



The project entailed the internal rehabilitation of a 115-year-old concrete pipeline, which is a primary potable water supply and hydro-electric supply main. Nukote was engaged in this project at the request of the client. We visited the site and worked directly in the specification development with the client and prime contractor. Complexities involve high elevation, limited access, and application work only during late fall to early spring.

The client had tested alternate solutions for several years that included; UV-Cured CIPP and high build epoxies, all of which were impractical in these unique conditions. Nukote supplied a semi-structural system that exceeded the clients' specification requirements. A Nukote Aegis® composite system was utilized combining structural and potable water-certified liner formulations, which would exceed the structural properties of the alternate systems in the same condition. The liner recommended was a composite of two products. Nukote PP 300 (structural liner) and Nukote ST-PW. The PP 300 structural base (4mm/160mil) provides the significant ring stress required and the ST-PW top liner (2mm/80mil) provides the ANSI NSF rating required. The composite system provides the added benefit of higher erosion and impact resistance to the system. The two products formed a monolithic single layer and performed at higher structural levels than the alternative systems.

This project was challenging in several respects; tight installation window, very cold weather, narrow access at extreme elevations of 9000', and application during winter months, all contributed to the complexity of the project. Many competitors had tried to do this project in the past, but they were all unsuccessful. Redline pipelines (prime contractor) and Blastco applicator worked throughout the project with the contractor and the client to overcome obstacles and meet the objectives as defined and all within budget. This project will continue from October-April for several years, utilizing the unique features of Nukote Aegis® liner products and Nukote 360 Ringtech® robotics.