



## Case History 555

### *Lift Station Corrosion Prevention*

Tulsa was expanding rapidly southward, along the Arkansas River. Sewers in these low lying areas were frequently experiencing high levels of hydrogen sulfide attack due to low flows (excess capacity in anticipation of growth), flat topography and resulting septic conditions. In early 1992, in anticipation of such corrosive environments, the city and its consulting engineers approved Raven Lining System's epoxy for lining 4,000 sf of wet wells and collection boxes in the city's new lift station at 129th and Sheridan to prevent otherwise inevitable corrosion.

Raven 405 was recommended because it is a 100% solids hybrid epoxy formulation designed for application to underground concrete structures. Because it is 100% solids, it is operator friendly for confined space entry applications and is also safe for the environment. Raven 405's chemical resistance properties were specifically designed for tough acidic environments. It has been in severe municipal and industrial service since 1987.

Raven's application process involved high pressure water cleaning of all surfaces before coating the new, but fully-cured concrete with 80 mils of Raven 405. The scaffold work, in four separate chambers, over 50' underground, was completed, turnkey, in five working days with the efficient Raven spray application system. The lift station is inspected regularly and the coating has performed flawlessly, even though conditions remain highly corrosive. Tulsa continues to specify Raven products in new and existing structures with corrosive environments.

