

# CASE STUDY



**LOCATION:** Ames, IA  
**APPLICATION:** Scale Reduction and Prevention  
**SITE DETAILS:** USDA National Animal Disease Center Laboratory



## SITE OVERVIEW

With an average water hardness of over 22 gpg, this USDA research complex faced a constant challenge of limescale buildup. For over a decade, the facility treated a number of buildings with conventional ion exchange water softeners only to experience continued fouling. Due to increased water restrictions from local wastewater management (with regards to return TDS discharge) and a desire to be more efficient and environmentally responsible, the USDA facilities team turned to Flow-Tech's chemical-free solution.

**22 GPG**

**WATER HARDNESS**

**750 lbs**

**MONTHLY SALT SAVINGS**

**100%**

**REMOVAL OF SCALE**

## RESULTS

The facility's previous water treatment method, consisting of conventional ion exchange systems (which required over 750 lbs of salt per month) resulted in the severe level of mineral fouling shown to the right. After 13 months of Flow-Tech treating the facility's heat exchangers, the chemical-free technology prevented the formation of new limescale, while successfully descaling and removing the existing scale that had encrusted the heat exchangers prior Flow-Tech.



Limescale buildup on a heat exchanger before Flow-Tech



Flow-Tech removed existing scale, and prevented new scale, restoring performance