



## Sludge Reduction of 50% Achieves Cost Savings of Over \$300,000 Annually

### Customer Goals

A poultry processing facility was relying heavily on ferric salts to manage their wastewater system. While ferric had been a staple in their program, its side effects were clear: more sludge, higher handling costs, and downstream operational inefficiencies. Together, we evaluated their site conditions and designed a tailored chemistry program that reduced sludge, cut overall chemical spend, and phased out ferric without sacrificing performance or reliability.

### Plan & Process

Equipment : Primary DAF, Coagulant Feed

Flow Rate : 1.2 – 1.4 MGD

To move away from the cost and sludge challenges of ferric-based treatment, we introduced a chitosan-based program. This approach delivered more efficient solids separation, which directly reduced sludge volumes and lowered hauling demands. By optimizing chemistry selection and reducing reliance on metal-based treatment, the facility achieved the performance they needed with a significant cut in overall chemical spend.

### Recommended Solution

| Our Chemistry             | 211.2 ppm |
|---------------------------|-----------|
| Coagulant : TideForce 316 | 200 ppm   |
| Flocculant : PF622        | 11.2 ppm  |
| Incumbent Chemistry       | 109 ppm   |
| Ferric Chloride           | 99.7 ppm  |
| Incumbent Flocculant      | 9.3 ppm   |

### Results vs. Incumbent

Reduced Sludge Disposal Costs

**\$624,000 » \$312,000 Annually**

Chemical Costs

**50% Reduction**

Metal Salts Content

**Total System Reduction**

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making it safer, more efficient, reducing wear on machinery,  
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