# Case Study SWEETOL EV-37R



## **Background**

The customer has 3 sets of evaporator bodies (triples) that are cleaned on a weekly basis with caustic soda and acid. With new evaporator tubes (304 SS) installed, the customer wanted to reduce the frequency of (or possibly eliminate) acidic cleaning of evaporator tubes.

EVAPORATOR TRIPLE DETAILS	
Volume	13,380 Gallons
Material of Construction	304 SS

# **Scale Type**

Based on wet and analytical tests, the scale was predominantly calcium carbonate type with presence of silica.

#### **Trial Parameters**

SWEETOL<sup>TM</sup> EV-37R (also sold under the Brand Name of SODAWIN<sup>TM</sup> - QA\*) at 4% was added to the recycled caustic soda to clean three bodies of evaporator set (triple) No 2. Total volume of triples (calandria, downtake & bottom volume) was 13380 gallons. The trial was ran for five (5) hours of heating with caustic soda & SWEETOL EV-37R mix at 225°F (107°C). This was followed by hot water wash for 15 minutes at 180°F (82°C), and finally a cold water rinse.

### **General Observation**

Within 15 minutes of the start of trial with SWEETOL $^{\text{TM}}$  EV-37R, the watch glasses started to get cleaned. It generally takes an hour or more to reach this stage.

## Results

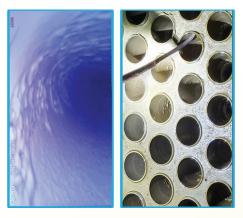
After cleaning with SWEETOL™ EV-37R a very soft scale was left on the evaporator tubes. The evaporators were immediately brought back on line without the need to do acid cleaning. This exceptionally soft scale was then automatically removed by the high speed juice flowing through the system. Acid cleaning of the evaporator tubes was eliminated. No manual cleaning (brush round or hydroblasting) was performed. The entire evaporator cleaning lasted approximately six (6) hours.

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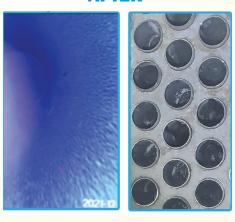




# **BEFORE**



**AFTER** 



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