**Challenge**

**Goals**
- Reduce annual costs (est. $3.9K/year) of corrosion and erosion maintenance for bar screens
- Avoid 5-year (average life) purchase of new bar screen (est. $19K)

**Root Cause**
Corrosion from H₂S gas attacked an ineffectively protected frame structure. Erosion abrasion from solids removal was accelerating attack.

**Solution**

**Preparation**
- Pressure wash and decontaminate surfaces
- Grit blast to Sa 2.5 with 3 mil (75 µm) angular profile

**Application**
- Apply two coats of ARC S2 to internals for corrosion/erosion resistance

**Results**

**10 Year Inspection Outcome**
- Doubled 5 year service life
- ARC S2 optimally performed for over 10 years
- Plant data indicates that bar screen associated maintenance activities are negligible
- Based on previous repair costs, the estimated savings, less the cost of the ARC solution

<table>
<thead>
<tr>
<th>Total repair cost saved (over 10 years): $34K</th>
<th>2 New Bar Screens Cost Avoidance: $38K</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total:</strong></td>
<td><strong>$72K</strong></td>
</tr>
</tbody>
</table>

$=USD

Screen in operation prior to coating

Screen frame surface after coating

ARC coated surfaces